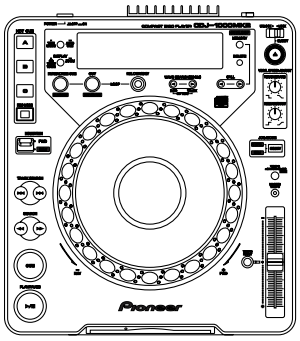
Pioneer *sound.vision.soul*

Service Manual



CDJ-1000MK2

ORDER NO.
RRV2802

COMPACT DISC PLAYER

CDJ-1000MK2

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
CDJ-1000MK2	KUCXJ	AC120V	
CDJ-1000MK2	TLXJ	AC110- 240V	
CDJ-1000MK2	WYXJ	AC220- 240V	

For details, refer to "Important symbols for good services"

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
ⓒ**PIONEER CORPORATION 2003**

T-ZZY JULY 2003 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

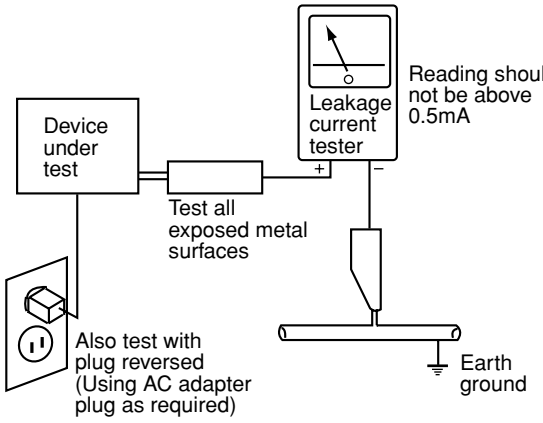
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
+
–
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mW
WAVELENGTH: 780 – 785 nm

WARNING !

The AEL(accessible emission level) of the laser power output is less then **CLASS 1** but the laser component is capable of emitting radiation exceeding the limit for **CLASS 1.**

A specially instructed person should servicing operation of the apparatus.

LABEL CHECK

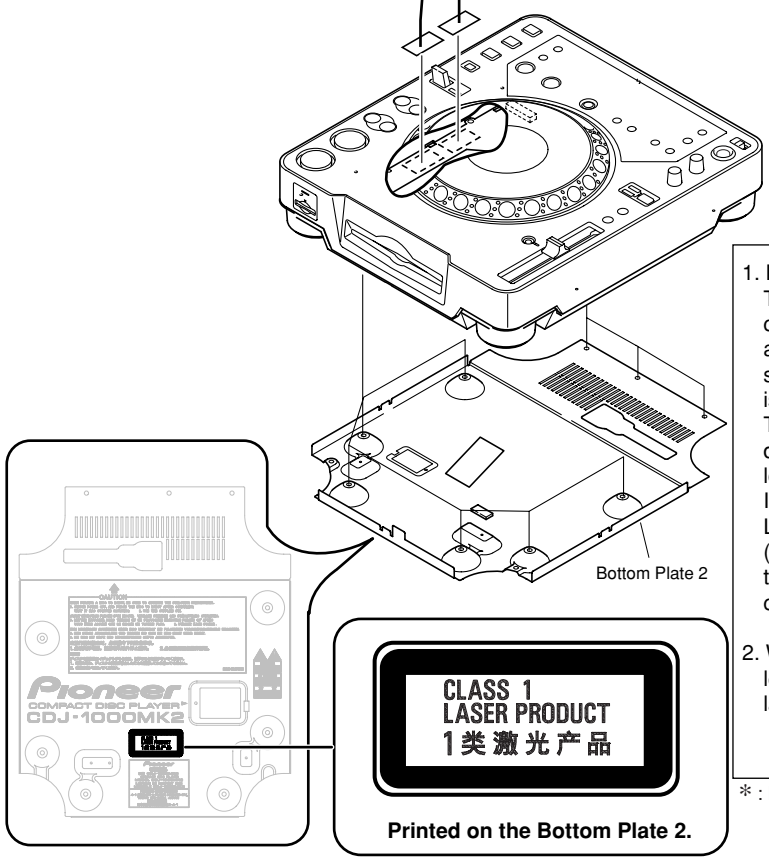
CDJ-1000MK2/ TLXJ Type Only

CAUTION
INVISIBLE LASER
RADIATION WHEN OPEN,
AVOID EXPOSURE
TO BEAM
PRW1018

CDJ-1000MK2/ WYXJ Type Only

VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094



CLASS 1
LASER PRODUCT
1类激光产品

Printed on the Bottom Plate 2.

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S510) for detecting loading completion is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch is not in LPS1 terminal side (when the mechanism is not clamped and LPS1 signal is high level.)
   Thus, the interlock will no longer function if the switch is deliberately set to LPS1 terminal side. (if LPS1 signal is low level).
   In the test mode* the interlock mechanism will not function. Laser diode oscillation will continue, if pin 4 of AN8702NFH (IC800) on the MAIN ASSY is connected to GND, or else the terminals of Q600 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 68.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

■ CDJ-1000MK2/ KUCXJ type

1. General

System ..... Compact disc digital audio system
Power requirements ..... AC 120 V, 60 Hz
Power consumption ..... 33 W
Operating temperature ..... +5 ˚C – +35 ˚C
Operating humidity ..... 5% – 85%
(There should be no condensation of moisture.)
Weight ..... 4.2 kg (9.26 lb)
Dimensions ..... 320 (W) × 370 (D) × 105 (H) mm
12 – 5/8 (W) × 14 9/16 (D) × – 1/8 (H) in

2. Audio section

Frequency response ..... 4 Hz – 20 kHz
Signal-to-noise ratio ..... 115 dB or more (JEITA)
Distortion ..... 0.006% (JEITA)

3. Accessories

Operating instructions 1
Power cord 1
Audio cable 1
Control cord 1
Forced eject pin (housed in a groove in the bottom panel) 1
Multimedia Card (MMC) (16 MB) 1
Limited warranty 1

NOTE:
Specifications and design are subject to possible modification without notice.

■ CDJ-1000MK2/ TLXJ type

1. General

System ..... Compact disc digital audio system
Power requirements ..... AC 110–240 V, 50/60 Hz
Power consumption ..... 31 W
Operating temperature ..... +5˚C – +35˚C
Operating humidity ..... 5% – 85%
(There should be no condensation of moisture.)
Weight ..... 4.2 kg
Dimensions ..... 320 (W) × 370 (D) × 105 (H) mm

2. Audio section

Frequency response ..... 4 Hz – 20 kHz
Signal-to-noise ratio ..... 115 dB or more (JEITA)
Distortion ..... 0.006% (JEITA)

3. Accessories

Operating instructions 1
Power cord 1
Audio cable 1
Control cord 1
Forced eject pin (housed in a groove in the bottom panel) 1
Multimedia Card (MMC) (16 MB) 1

NOTE:
Specifications and design are subject to possible modification without notice.

■ CDJ-1000MK2/ WYXJ type

1. General

System ..... Compact disc digital audio system
Power requirements ..... AC 220-240V, 50/60 Hz
Power consumption ..... 31 W
Operating temperature ..... +5˚C – +35˚C
Operating humidity ..... 5% – 85%
(There should be no condensation of moisture.)
Weight ..... 4.2 kg
Dimensions ..... 320 (W) × 370 (D) × 105 (H) mm

2. Audio section

Frequency response ..... 4 Hz – 20 kHz
Signal-to-noise ratio ..... 115 dB or more (JEITA)
Distortion ..... 0.006% (JEITA)

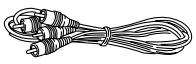
3. Accessories

Operating instructions 1
Power cord 1
Audio cable 1
Control cord 1
Forced eject pin (housed in a groove in the bottom panel) 1
Multimedia Card (MMC) (16 MB) 1

NOTE:
Specifications and design are subject to possible modification without notice.

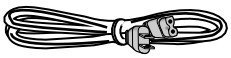
Accessories

Audio Cable
(VDE1064) L=1.5m



Control Cord
(PDE-319) L=1 m

Power Cord
(KUCXJ type : ADG7021
(TLXJ, WYXJ type: ADG1154)



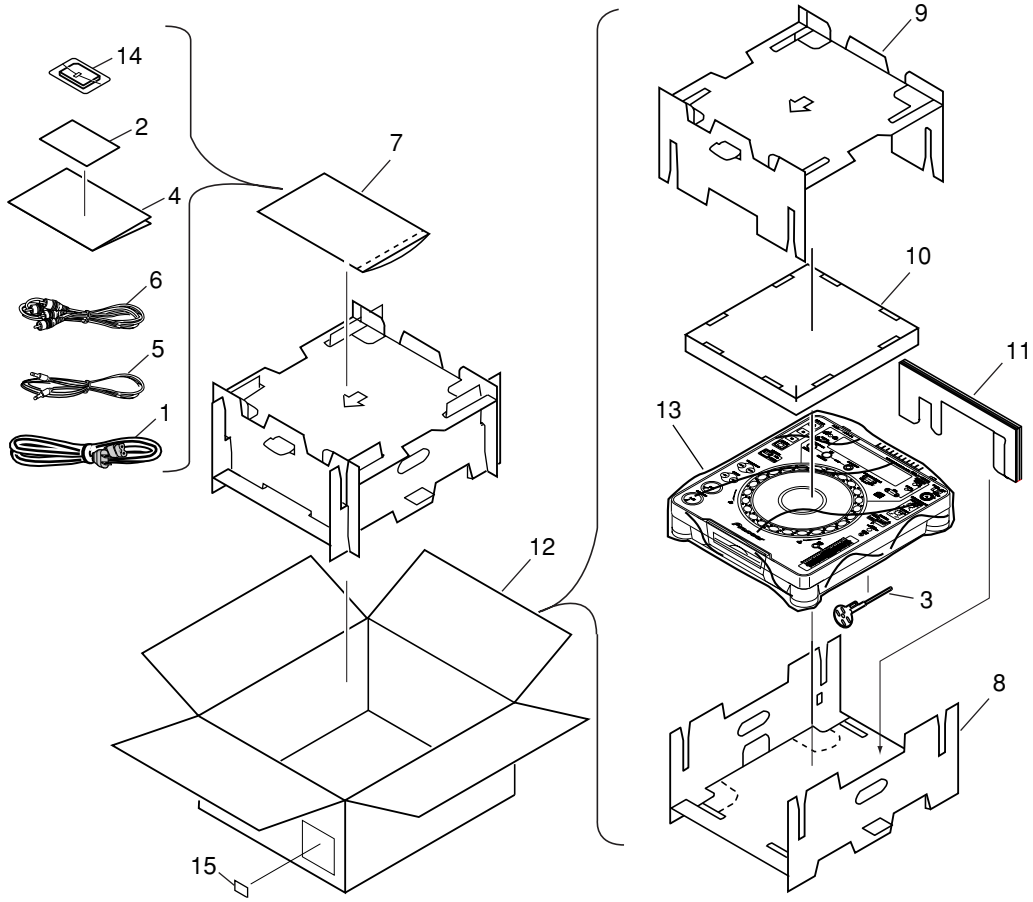
Forced Eject Pin
(DEX1013)

MMC Memory Card
(DWX2326)

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on product are used for disassembly.*
● *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING



PACKING Parts List

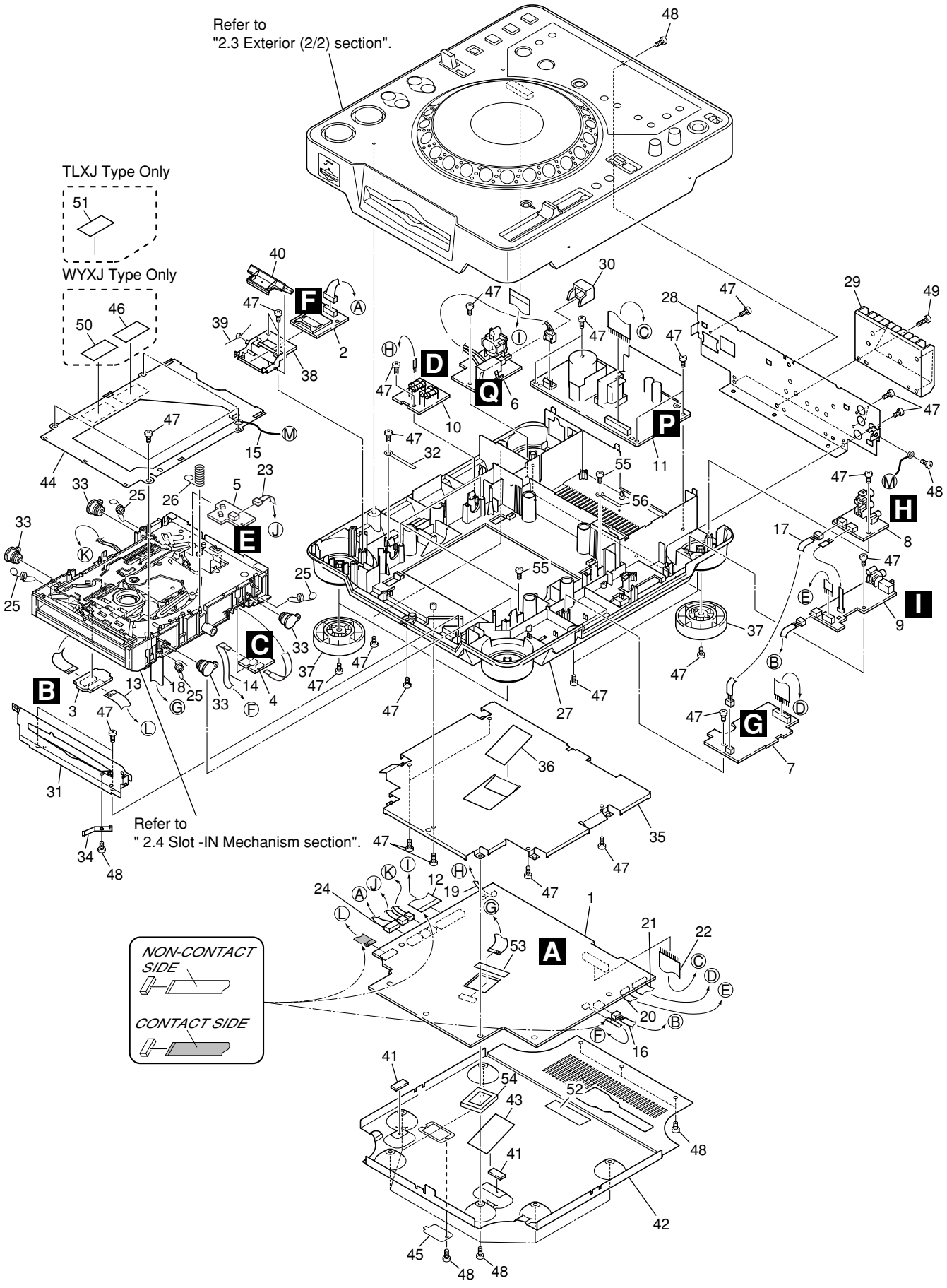
Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast Table(2)
NSP	2	Warranty Card	See Contrast Table(2)
	3	Forced Eject Pin	DEX1013
	4	Operating Instructions	See Contrast Table(2)
	5	Control Cord (L= 1m)	PDE-319
	6	Audio Cable (L= 1.5m)	VDE1064
NSP	7	Polyethylene Bag (230 x 340 x 0.03)	Z21-038
	8	Pad (A)	DHA1533
	9	Pad (B)	DHA1534
	10	Pad (C)	DHA1535
	11	Pad (D)	DHA1536
	12	Packing Case	See Contrast Table(2)
	13	Sheet	RHX1006
	14	MMC Memory Card	DWX2326
NSP	15	Label	VRW1629

(2) CONTRAST TABLE

CDJ-1000MK2/KUCXJ, TLXJ and WYXJ types are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		
			KUCXJ type	TLXJ type	WYXJ type
⚠	1	Power Cord	ADG7021	ADG1154	ADG1154
NSP	2	Warranty Card	ARY7043	Not used	Not used
	4	Operating Instructions (English)	DRB1339	Not used	Not used
	4	Operating Instructions (English, Spanish, Chinese)	Not used	DRB1340	Not used
	4	Operating Instructions (English, French, German, Italian, Dutch, Spanish)	Not used	Not used	DRB1338
	12	Packing Case	DHG2363	DHG2364	DHG2362

2.2 EXTERIOR SECTION (1/2)



EXTERIOR SECTION (1/2) Parts List

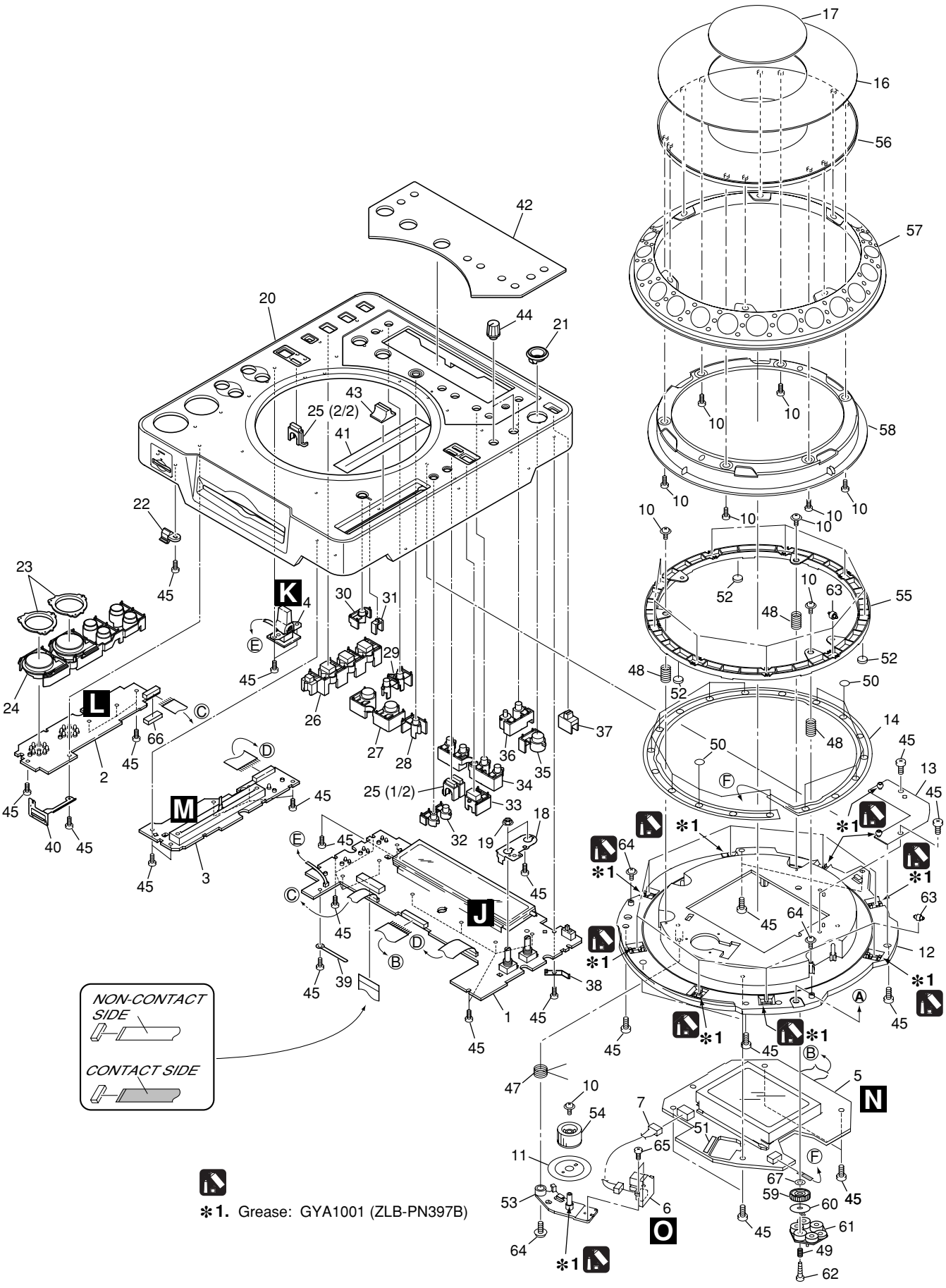
Mark	No.	Description	Part No.
	1	MAIN Assy	DWX2303
	2	MMCB Assy	DWX2304
	3	SPCN Assy	DWX2170
	4	STCN Assy	DWX2171
	5	SLMB Assy	DWX1309
	6	PSWB Assy	See Contrast Table(2)
	7	DABB Assy	DWX2305
	8	JACB Assy	DWX2306
	9	DOUT Assy	DWX2307
	10	FLRB Assy	DWX2308
	11	SW POWER SUPPLY Assy	DWR1370
	12	25P Flexible Cable/60V	DDD1196
	13	12P Flexible Cable/60V	DDD1197
	14	4P Flexible Cable/60V	DDD1198
	15	Earth Lead Unit/300V	DDF1024
	16	Connector Assy 3P	DKP3562
	17	Connector Assy 6P	DKP3654
	18	FPC D5 Slot	DNP1948
	19	Jumper Wire 03P	D20PYY0310E
	20	Jumper Wire 05P	D20PYY0510E
	21	Jumper Wire 09P	D20PYY0910E
	22	Jumper Wire 15P	D20PYY1510E
	23	Connector Assy	PF03PP-B30
	24	Connector Assy	PF09PP-D15
	25	Float Spring (G5)	DBH1494
	26	Earth Spring	DBH1398
	27	Chassis	DNK3869
NSP	28	Rear Panel	See Contrast Table(2)
	29	Heat Sink	DNG1082
	30	Power Knob	DAC1895
	31	Front Plate	DNH2480
	32	Cord Clamper	RNH-184
	33	Damper	CNV6011
	34	Earth Plate (CU)	VBK1070
	35	Shield Case	DNH2481
	36	Shield Cushion	DEC2445
	37	Insulator Assy	DXA1904
	38	Memory Holder	DNK3884
	39	Flap Spring	DBH1487
	40	SD Flap	DNK3883
NSP	41	Silicone Rubber D5L	DEB1456
	42	Bottom Plate 2	DNH2558
	43	Bottom Cushion	DEC2444
	44	Mecha Plate	DNH2339
	45	Bottom Cover	DNH2559
	46	Caution Label	See Contrast Table(2)
	47	Screw	BPZ30P080FZK
	48	Screw	BBZ30P060FZK
	49	Screw	BBZ30P120FZK
	50	Caution Label HE	See Contrast Table(2)
	51	Caution Label	See Contrast Table(2)
	52	65 Label	See Contrast Table(2)
	53	Protect Sheet	DEC2559
	54	PU Packing	DEC2593
	55	Screw	SBPZ30P140FMC
	56	Cord Clamper	ZCB-069Z

(2) CONTRAST TABLE

CDJ-1000MK2/KUCXJ, TLXJ and WYXJ types are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		
			KUCXJ type	TLXJ type	WYXJ type
	6	PSWB Assy	DWS1312	DWS1311	DWS1311
NSP	28	Rear Panel	DNC1647	DNC1648	DNC1646
	46	Caution Label	Not used	Not used	VRW1094
	50	Caution Label HE	Not used	Not used	PRW1233
	51	Caution Label	Not used	PRW 1018	Not used
	52	65 Label	ARW7050	Not used	Not used

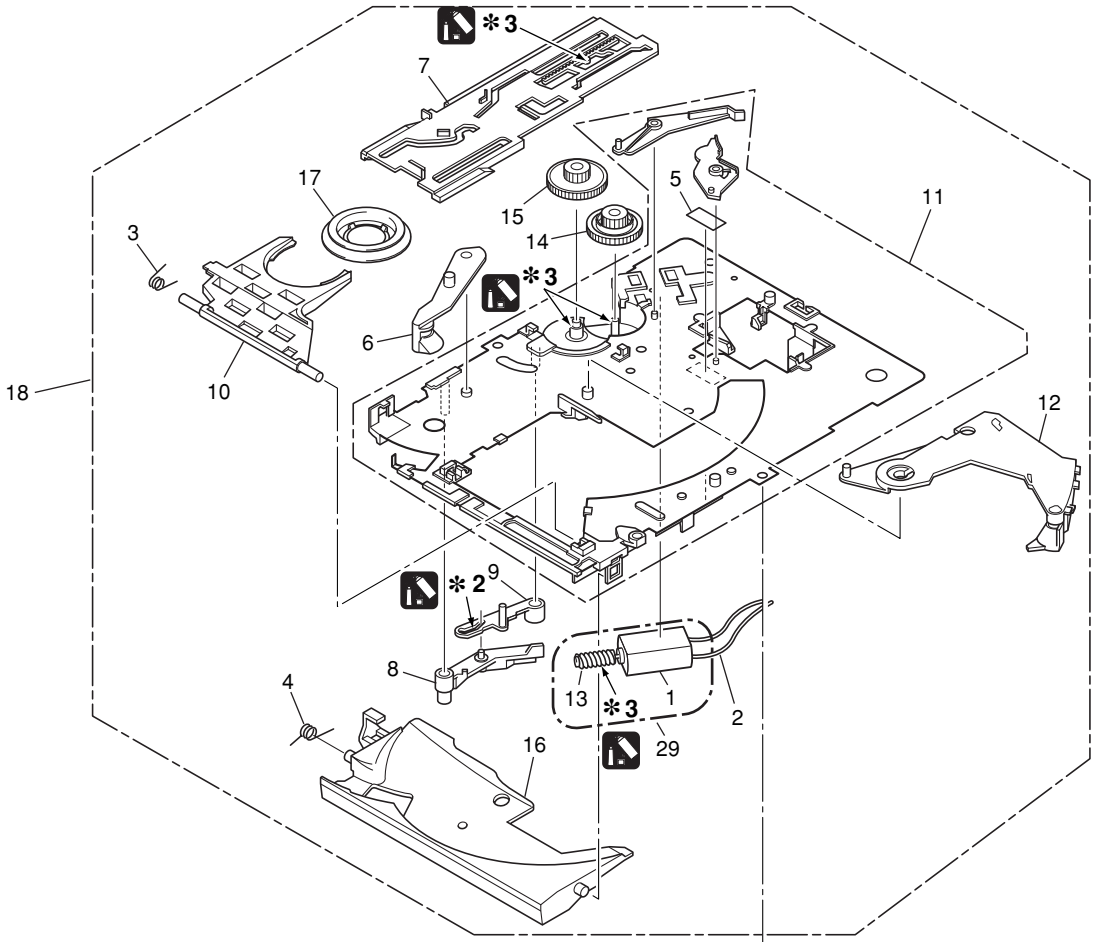
2.3 EXTERIOR SECTION (2/2)



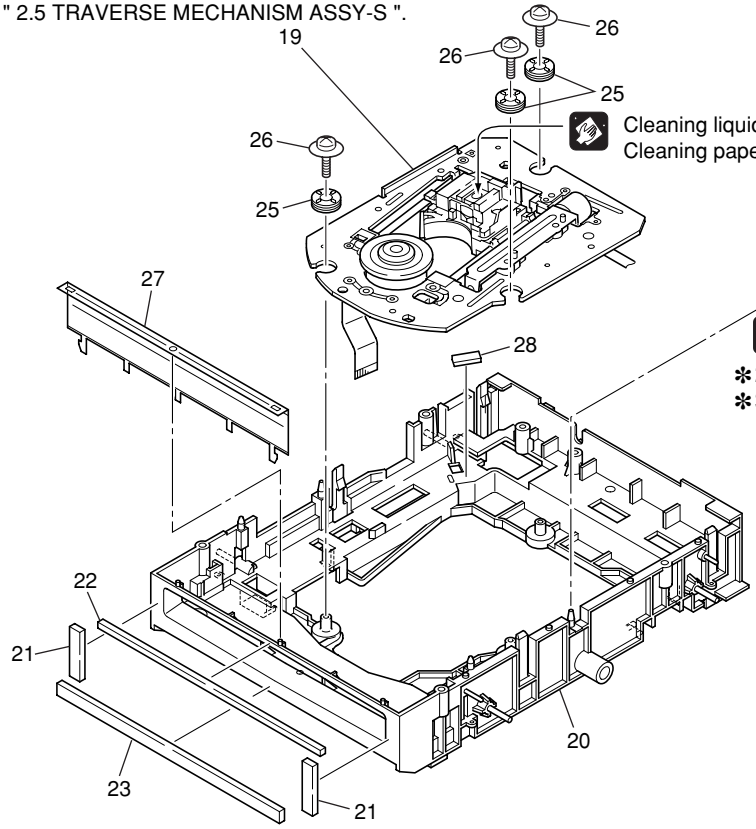
EXTERIOR SECTION (2/2) Parts List

Mark	No.	Description	Part No.
	1	MFLB Assy	DWG1567
	2	KSWB Assy	DWS1324
	3	SLDB Assy	DWS1325
	4	RSWB Assy	DWS1310
	5	JFLB Assy	DWG1568
	6	JOGB Assy	DWG1569
	7	Connector Assy	PF04PP-B07
	8	• • • • •	
	9	• • • • •	
	10	Screw	PBA1062
	11	Encoder Plate	DEC2498
	12	JOG Holder 2	DNK4175
	13	JOG Stay Assy	DXB1780
	14	Sheet SW	DSX1060
	15	• • • • •	
	16	JOG Plate	DAH2052
	17	JOG Panel	DAH2182
	18	VR Stay	DNF1663
	19	Flange Nut (M9)	DBN1004
	20	Control Panel	DNK4180
	21	Eject Guard	DNK3958
	22	Card Lens	DNK3885
	23	Ring Lens	DNK3880
	24	Set Knob (PLAY) Assy	DXB1762
	25	Mode Lens	DNK3881
	26	Set Knob (HS)	DAC1986
	27	Set Knob (LOOP)	DAC1995
	28	Re-loop Knob	DAC1992
	29	Set Knob (TIME)	DAC1991
	30	Tempo Reset Knob	DAC1993
	31	Tempo Lens	DNK3882
	32	Set Knob (MT)	DAC1987
	33	Mode Select Knob	DAC1989
	34	Set Knob (SC)	DAC1988
	35	Eject Knob	DAC1990
	36	Set Knob (MEMO)	DAC1994
	37	Slide SW Knob	DAC1926
	38	Earth Plate (CU)	VBK1070
NSP	39	Cord Clamper	ZCB-069Z
	40	Card Plate	DBK1212
	41	Slide Sheet 1C	DAH1988
	42	Display Panel	DAH2022
	43	Slide Knob	DNK2936
	44	Rotary Knob C	DAA1143
	45	Screw	BPZ30P080FZK
	46	• • • • •	
	47	Arm Spring	DBH1503
	48	SW Spring 25	DBH1514
	49	Gear Spring 200	DBH1525
	50	SW Cushion HH48/2	DEC2538
	51	Spacer	DEC2554
	52	Ring Cushion	DEC2604
	53	Gear Arm	DNK4065
	54	D Gear	DNK4066
	55	SW Ring	DNK4070
	56	JOG A	DNK4172
	57	JOG B	DNK4173
	58	JOG C	DNK4174
	59	Gear	DNK4176
	60	Smoother	DNK4177
	61	ADJ Plate	DNK4178
	62	Screw	BPZ20P100FMC
	63	Roller A Assy	DXB1773
	64	Screw	IPZ30P100FMC
	65	Screw	BPZ20P060FMC
	66	FFC Guard	DEC2586
	67	Washer	WA42D080D050

2.4 SLOT-IN MECHANISM SECTION



Refer to " 2.5 TRAVERSE MECHANISM ASSY-S ".

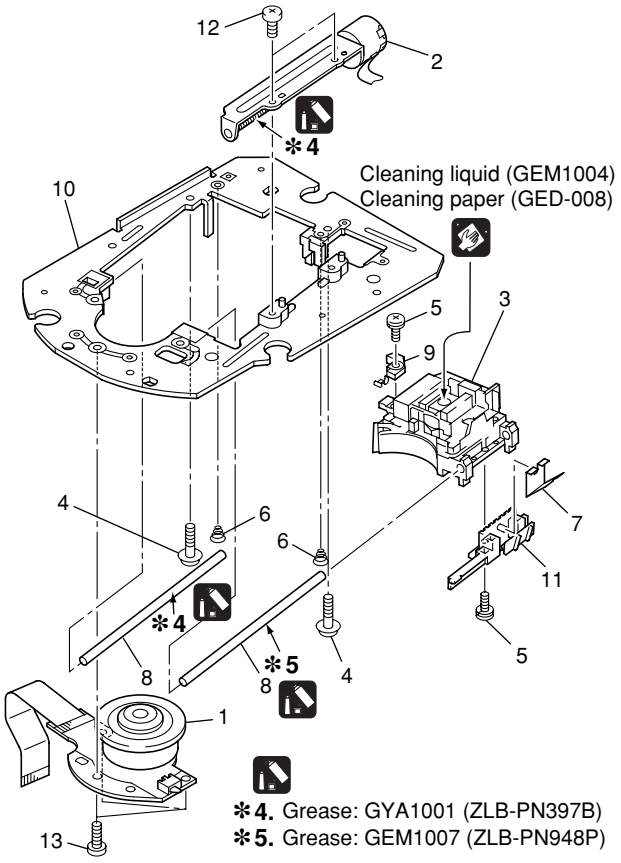


✻2. Dyefree : GEM1036 (ZLX-ME413A)
✻3. Grease: GYA1001 (ZLB-PN397B)

SLOT-IN MECHANISM SECTION Parts List

Mark	No.	Description	Part No.
NSP	1	DC Motor	DXM1093
	2	Connector Assy	PF02PY-B32
	3	Clamp Spring	DBH1374
	4	Guide Spring	DBH1375
	5	SW Lever Spacer (PET)	DEC2420
	6	Loading Lever	DNK3406
	7	Main Cam	DNK3407
	8	Lever B	DNK3558
	9	Lever A	DNK3564
	10	Clamp Arm	DNK3576
	11	Loading Base Assy-S	DEA1022
	12	Eject Lever	DNK3684
NSP	13	Worm Gear	DNK3910
	14	Loading Gear	DNK3911
	15	Drive Gear	DNK3912
	16	Disc Guide	DNK3914
	17	Clamper D4 Assy	DXA1881
NSP	18	Slot-in Mechanism G5 Assy	DXA1906
	19	Traverse Mechanism Assy-S	DXX2502
	20	Float Base (G5) Assy	DXB1748
	21	Vessel Cushion C	DEC2457
	22	Vessel Cushion A	DEC2455
	23	Vessel Cushion B	DEC2456
	24	•••••	
	25	Float Rubber D3	DEB1404
	26	Float Fastener	DBA1139
	27	Front Sheet	DED1132
	28	Spacer POR (T3)	DEB1566
	29	Loading Motor Assy-S	DEA1008

2.5 TRAVERSE MECHANISM ASSY-S

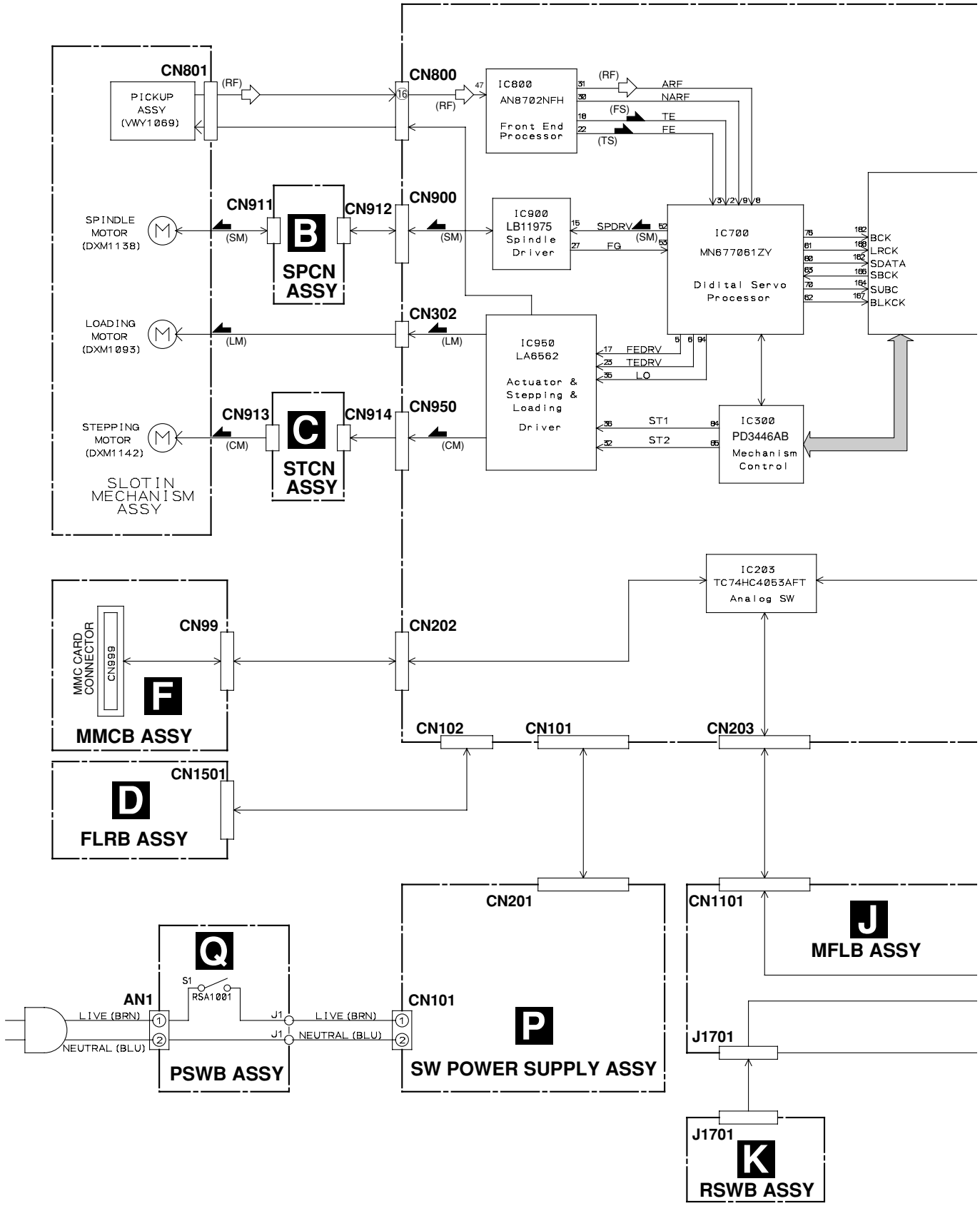


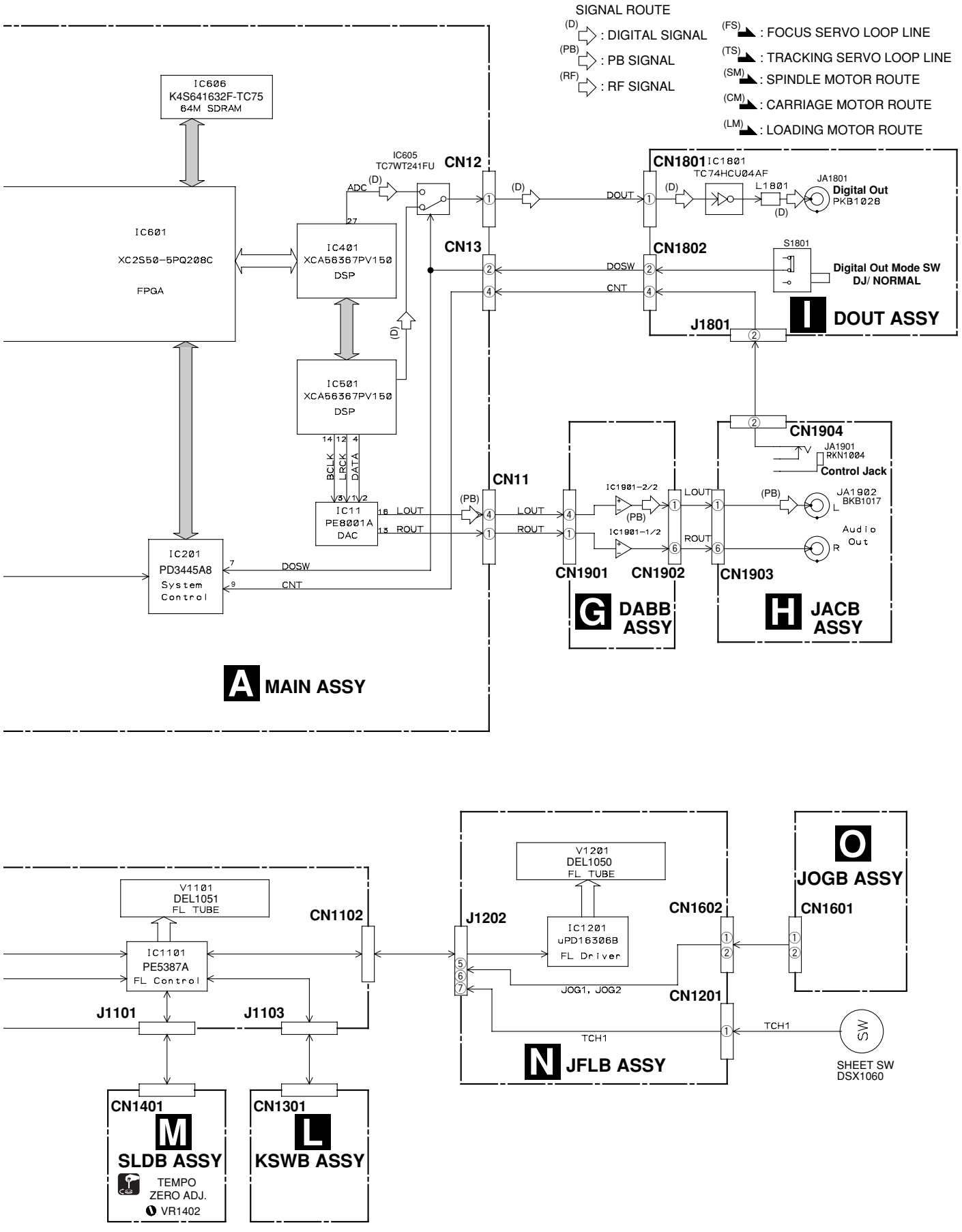
TRAVERSE MECHANISM ASSY-S Parts List

Mark	No.	Description	Part No.
NSP	1	Spindle Motor	DXM1138
NSP	2	Stepping Motor	DXM1142
NSP	3	Pickup Assy	VWY1069
NSP	4	Adjust Screw	DBA1119
NSP	5	Precision Screw	DBA1124
NSP	6	Skew Spring	DBH1437
NSP	7	Joint Spring	DBK1188
NSP	8	Guide Shaft	DLA1840
NSP	9	Slider G4	DNK3733
NSP	10	Mechanism Frame G5	DNK3776
NSP	11	Joint	DNK3777
	12	Screw	BPZ20P080FMC
	13	Screw	BPZ26P080FMC

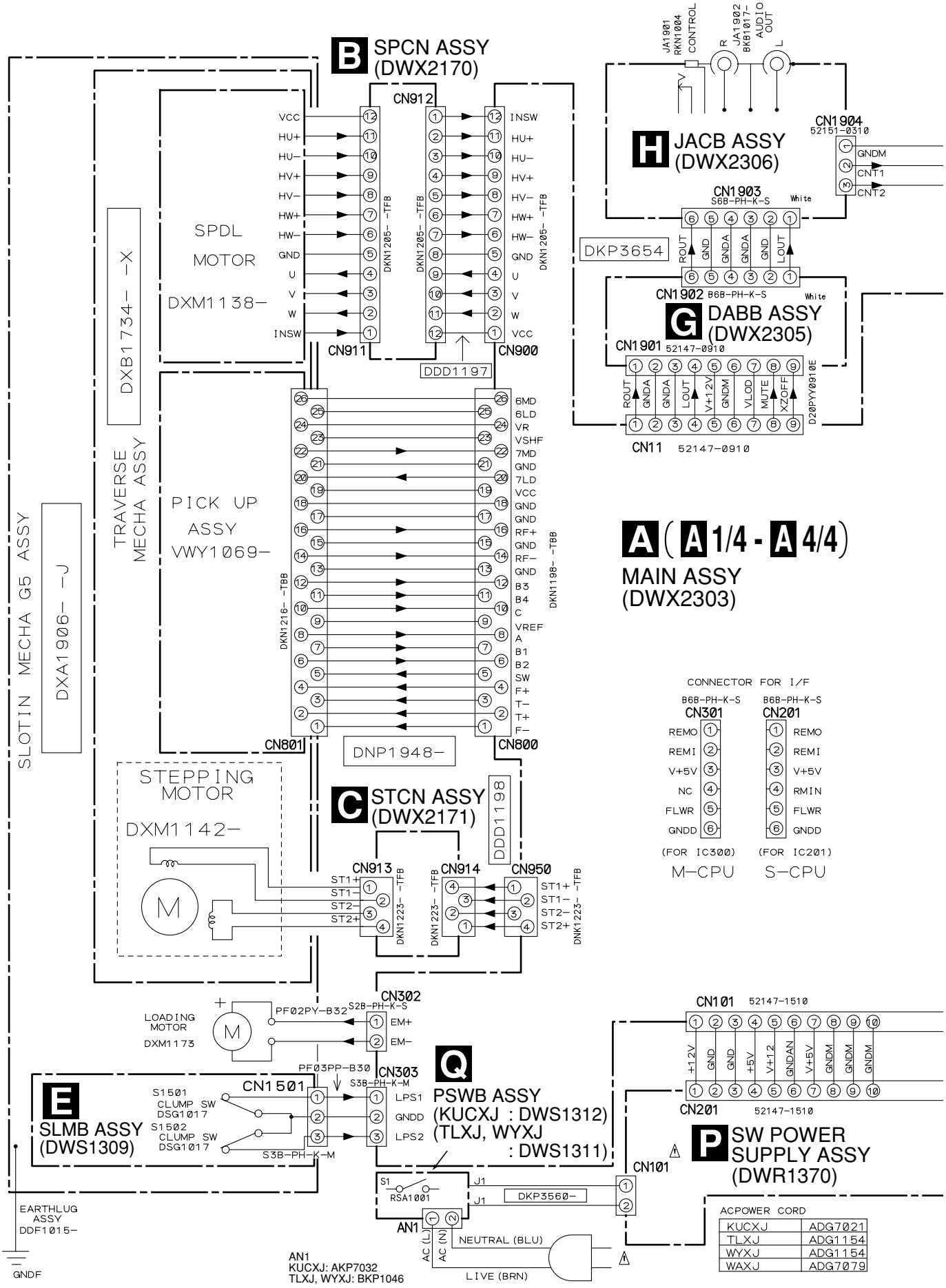
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

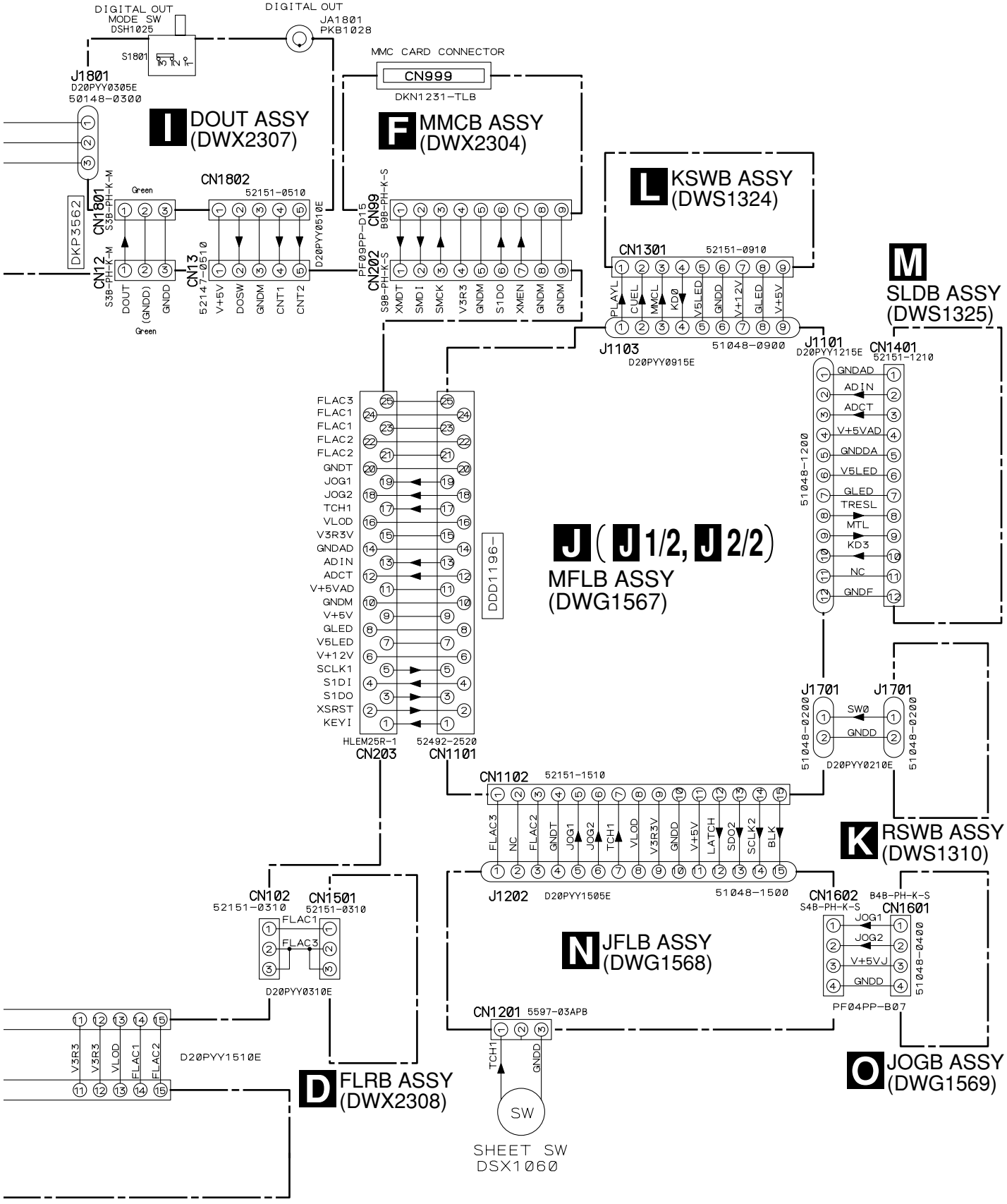



SIGNAL ROUTE
(D) : DIGITAL SIGNAL
(PB) : PB SIGNAL
(RF) : RF SIGNAL
(FS) : FOCUS SERVO LOOP LINE
(TS) : TRACKING SERVO LOOP LINE
(SM) : SPINDLE MOTOR ROUTE
(CM) : CARRIAGE MOTOR ROUTE
(LM) : LOADING MOTOR ROUTE
IC606
K4S641632F-TC75
64M SDRAM
IC601
XC2S50-5PQ208C
FPGA
IC605
TC7WT241FU
IC401
XCA56367PV150
DSP
IC501
XCA56367PV150
DSP
IC11
PE8001A
DAC
IC201
PD3445A8
System Control
CN12
CN13
CN11
CN1801
IC1801
TC74HCU04AF
L1801
JA1801
Digital Out
PKB1028
CN1802
S1801
Digital Out Mode SW
DJ/ NORMAL
J1801
I DOUT ASSY
CN1904
JA1901
RKN1004
Control Jack
JA1902
BKB1017
Audio Out
IC1901-2/2
IC1901-1/2
CN1901
CN1902
CN1903
G DABB ASSY
H JACB ASSY
A MAIN ASSY
V1201
DEL1050
FL TUBE
IC1201
uPD16306B
FL Driver
J1202
CN1602
CN1601
O JOGB ASSY
JOG1, JOG2
CN1201
TCH1
SW
SHEET SW
DSX1060
N JFLB ASSY
V1101
DEL1051
FL TUBE
IC1101
PE5387A
FL Control
CN1102
J1101
J1103
CN1401
M SLDB ASSY
TEMPO
ZERO ADJ.
VR1402
CN1301
L KSWB ASSY

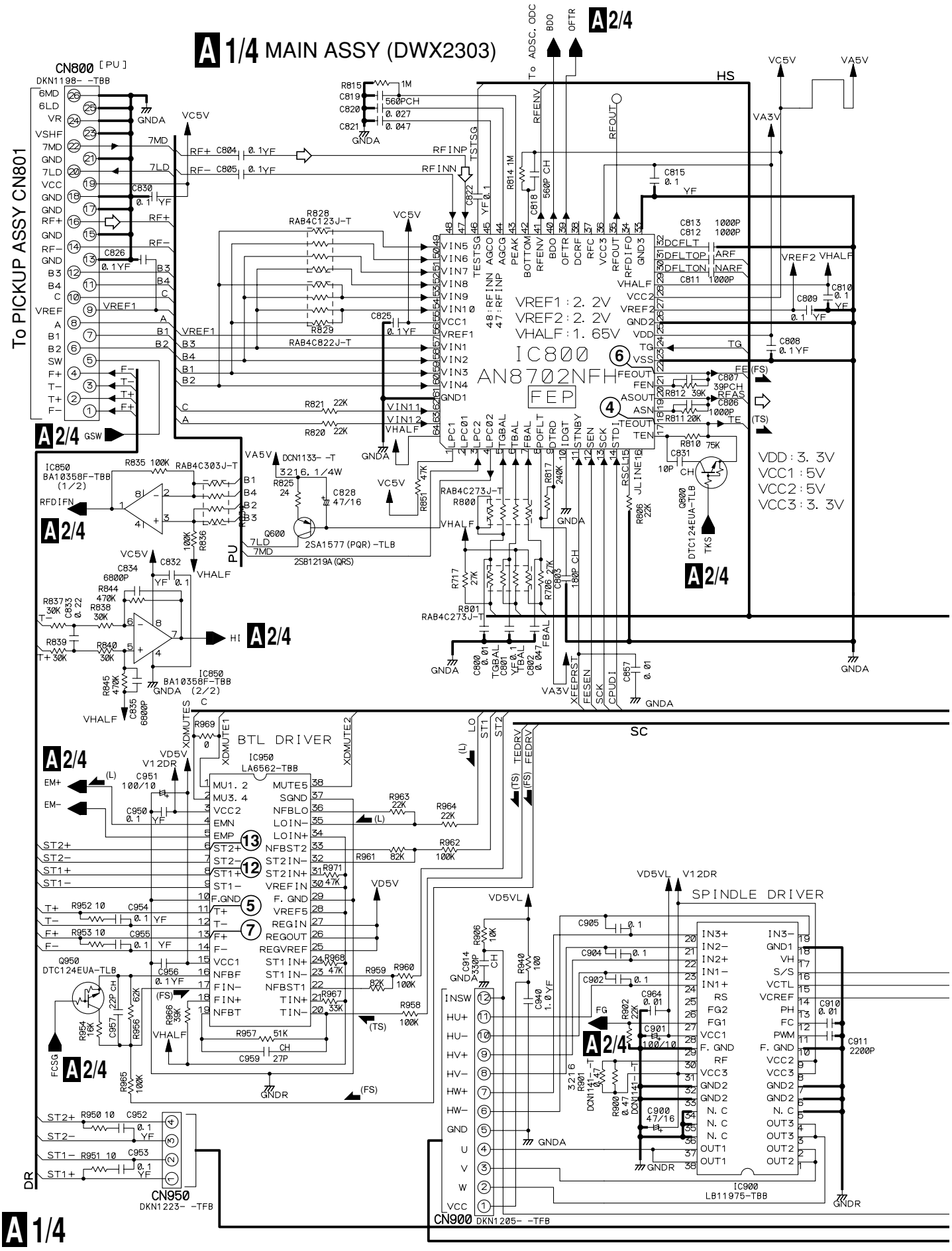
3.2 OVERALL WIRING DIAGRAM

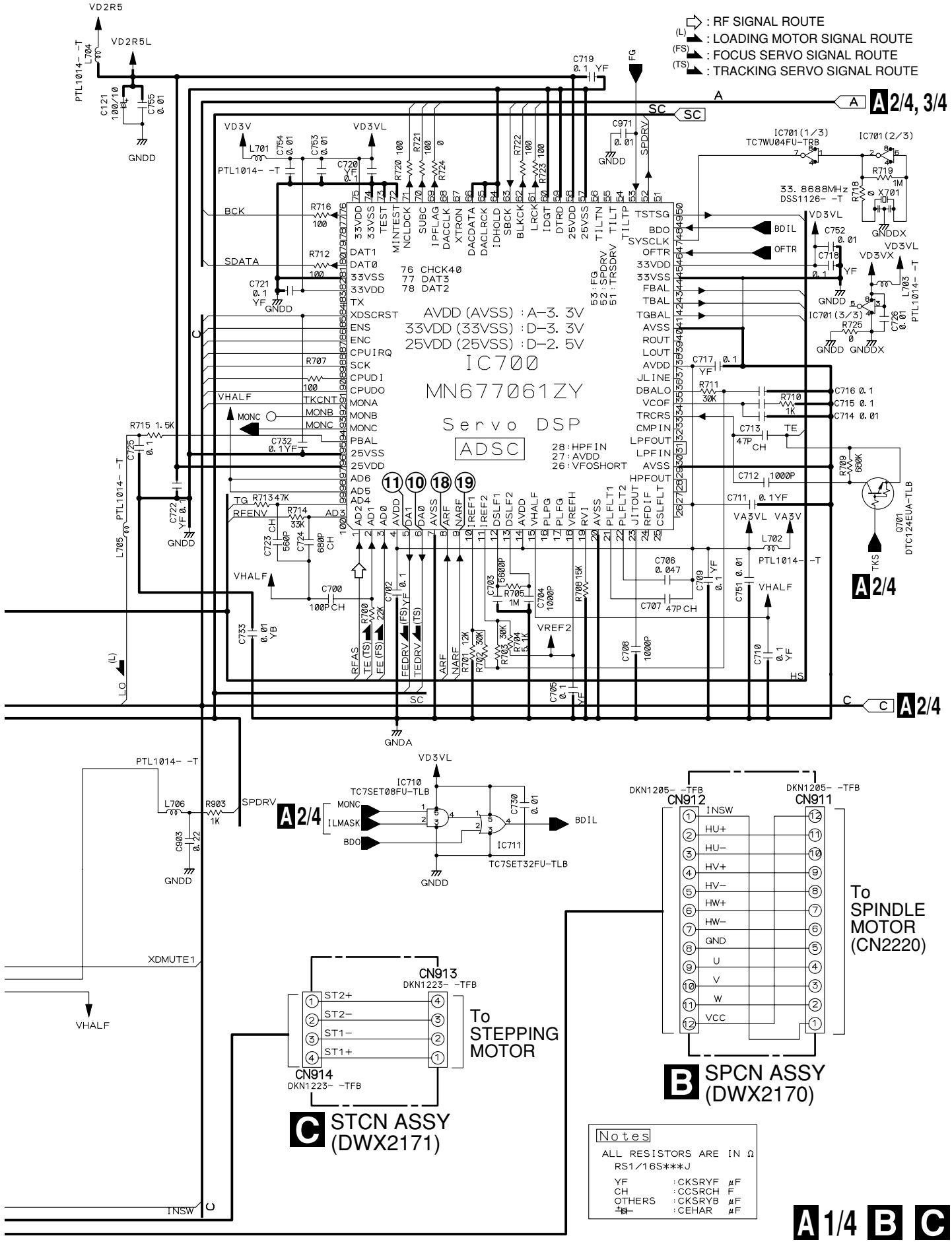


Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".

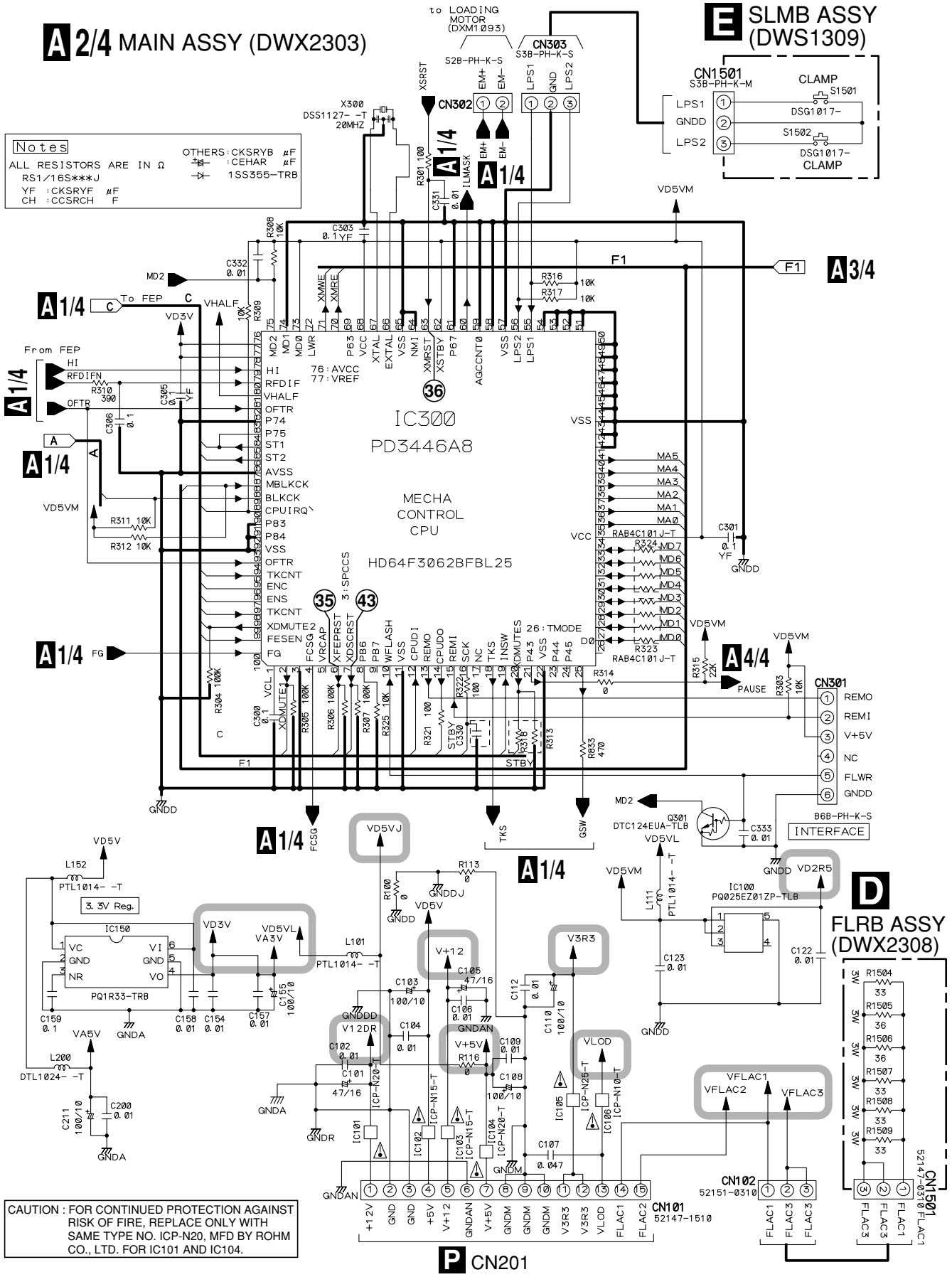


3.3 MAIN (1/4) and SPCN ASSYS

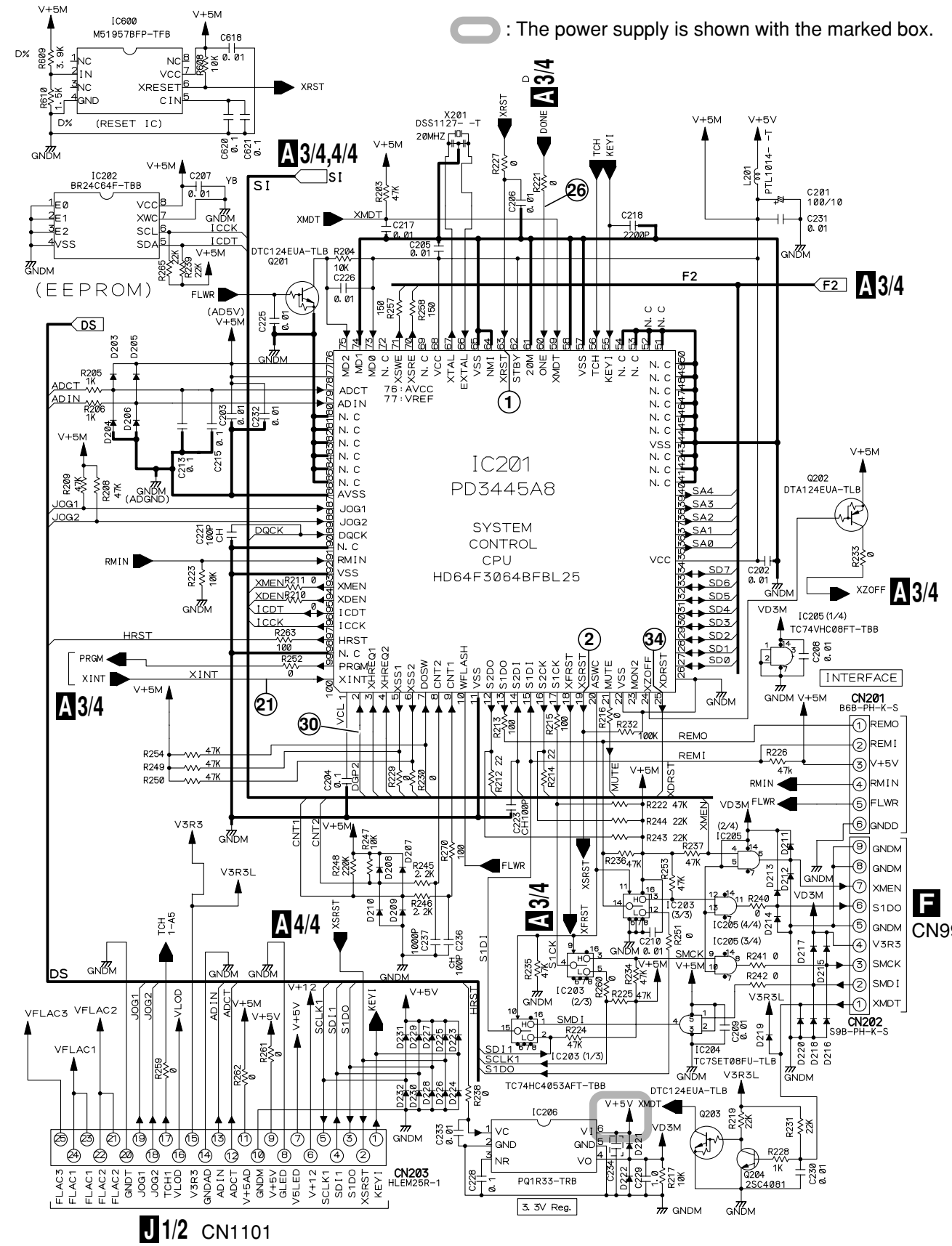



: RF SIGNAL ROUTE
(L) : LOADING MOTOR SIGNAL ROUTE
(FS) : FOCUS SERVO SIGNAL ROUTE
(TS) : TRACKING SERVO SIGNAL ROUTE
IC700
MN677061ZY
Servo DSP
ADSC
AVDD (AVSS) : A–3. 3V
33VDD (33VSS) : D–3. 3V
25VDD (25VSS) : D–2. 5V
IC710
TC7SET08FU-TLB
IC711
TC7SET32FU-TLB
IC701(1/3)
TC7WU04FU-TRB
IC701(2/3)
IC701(3/3)
33. 8688MHz
DSS1126– –T
X701
Q701
DTC124EUA-TLB
CN912
DKN1205– –TFB
CN911
DKN1205– –TFB
INSW
HU+
HU–
HV+
HV–
HW+
HW–
GND
U
V
W
VCC
To SPINDLE MOTOR (CN2220)
CN913
DKN1223– –TFB
ST2+
ST2–
ST1–
ST1+
CN914
DKN1223– –TFB
To STEPPING MOTOR
B SPCN ASSY (DWX2170)
C STCN ASSY (DWX2171)
A 2/4, 3/4
A 2/4
A 1/4 B C
Notes
ALL RESISTORS ARE IN Ω
RS1/16S***J
YF :CKSRYF μF
CH :CCSRCH F
OTHERS :CKSRYB μF
:CEHAR μF

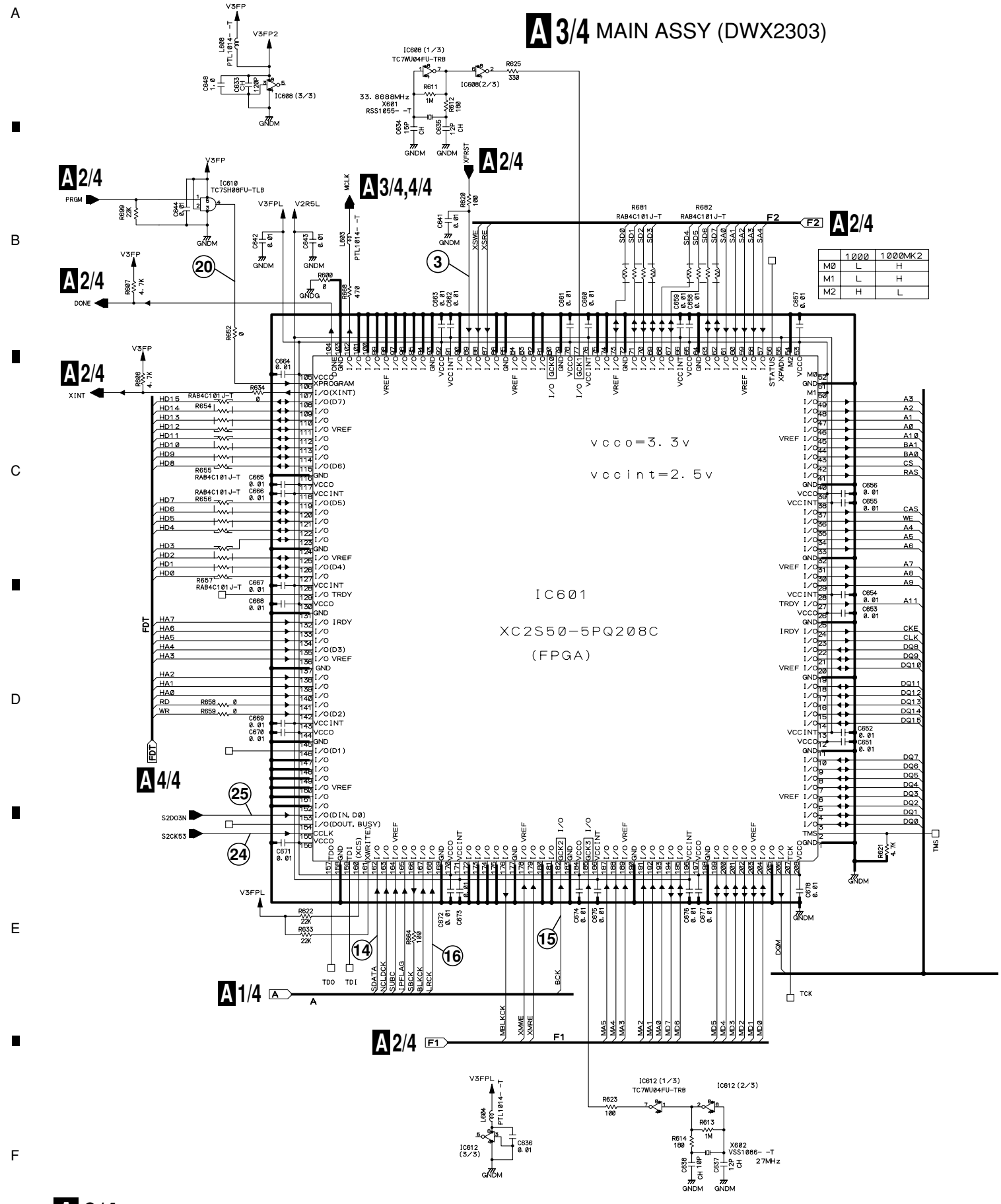
3.4 MAIN (2/4), FLRB and SLMB ASSYS

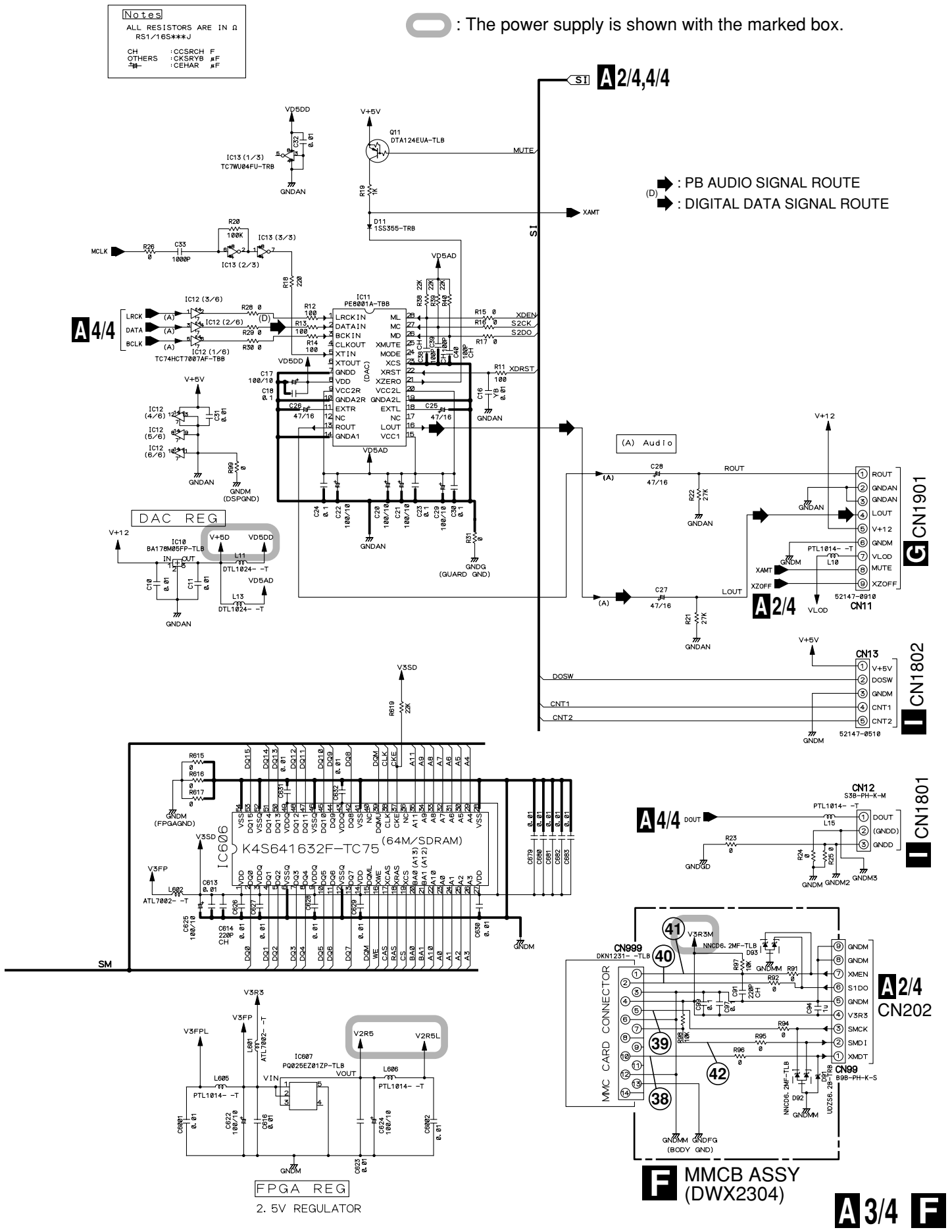


A 2/4 E D

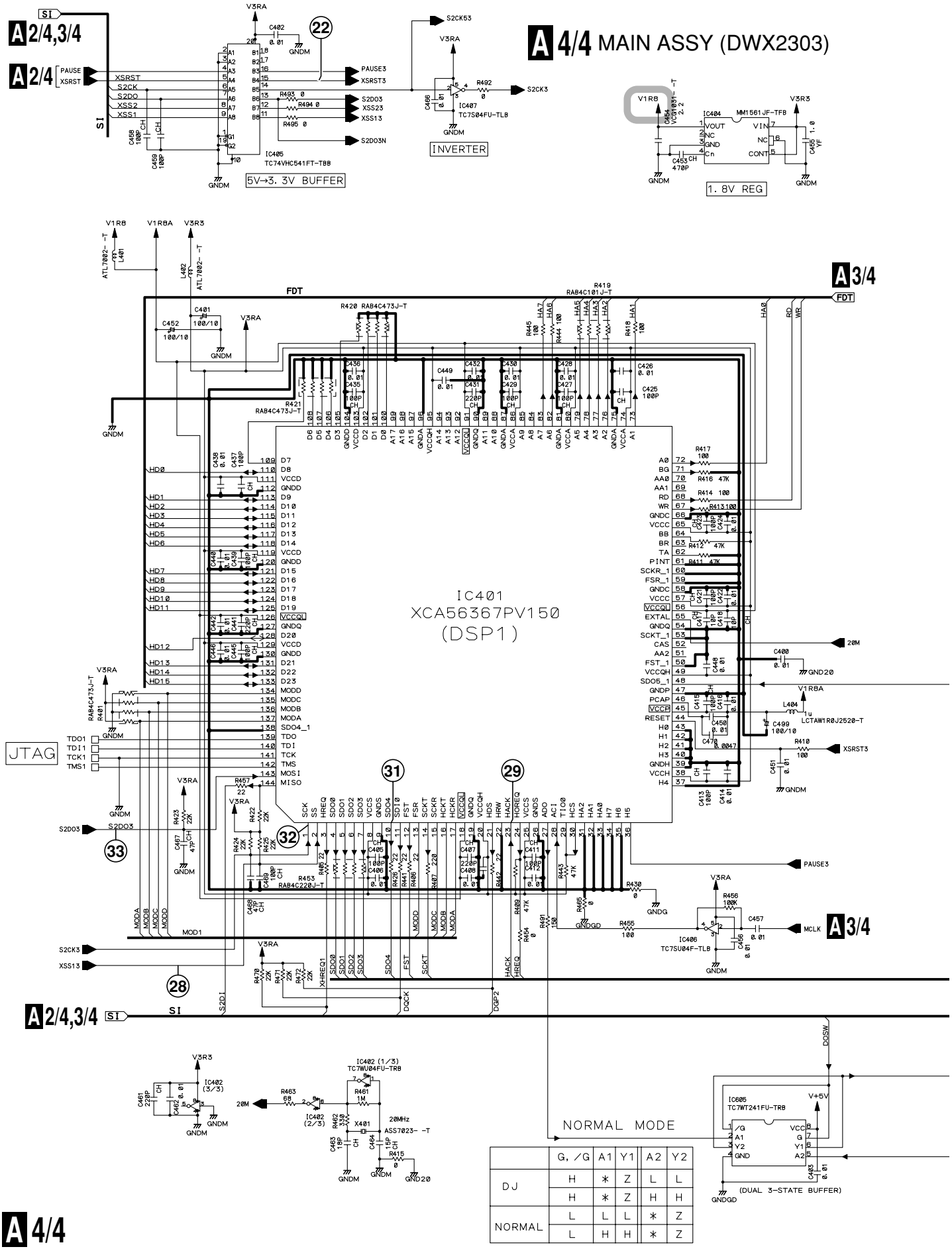

: The power supply is shown with the marked box.
IC201
PD3445A8
SYSTEM
CONTROL
CPU
HD64F3064BFBL25
IC600
M51957BFP-TFB
(RESET IC)
IC202
BR24C64F-TBB
(EEPROM)
X201
DSS1127- -T
20MHZ
IC205 (1/4)
TC74VHC08FT-TBB
IC205 (2/4)
IC205 (3/4)
IC205 (4/4)
IC203 (1/3)
IC203 (2/3)
IC203 (3/3)
IC204
TC7SET08FU-TLB
TC74HC4053AFT-TBB
IC206
PQ1R33-TRB
3. 3V Reg.
Q201
DTC124EUA-TLB
Q202
DTA124EUA-TLB
Q203
DTC124EUA-TLB
Q204
2SC4081
L201
PTL1014- -T
INTERFACE
CN201
B6B-PH-K-S
CN202
S9B-PH-K-S
CN203
HLEM25R-1
CN99
CN1101
A3/4,4/4
A3/4
A4/4
A2/4
J1/2
F
XRST
XMDT
SI
DS
F2
XZOFF
REMO
REMI
FLWR
RMIN
XMEN
S1DO
SMCK
SMDI
XMDT
V+5M
V+5V
V3R3
V3R3L
VD3M
GNDM
(AD5V)
(ADGND)
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N15, MFD BY ROHM CO., LTD. FOR IC102 AND IC103.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N25, MFD BY ROHM CO., LTD. FOR IC105.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC106.

3.5 MAIN (3/4) and MMCB ASSYS




Notes
ALL RESISTORS ARE IN Ω
RS1/16S***J
CH :CCSRCH F
OTHERS :CKSRYB µF
:CEHAR µF
: The power supply is shown with the marked box.
: PB AUDIO SIGNAL ROUTE
: DIGITAL DATA SIGNAL ROUTE
A 2/4,4/4
A 4/4
IC11 PE8001A-TBB
IC12 TC74HCT7007AF-TBB
IC13 TC7WU04FU-TRB
Q11 DTA124EUA-TLB
D11 1SS355-TRB
MUTE
XAMT
XDEN
S2CK
S2DO
XDRST
(A) Audio
DAC REG
IC10 BA178M05FP-TLB
CN1901
CN11
CN1802
CN13
CN1801
CN12
CN202
CN999
MMC CARD CONNECTOR
IC606 K4S641632F-TC75 (64M/SDRAM)
FPGA REG
2. 5V REGULATOR
F MMCB ASSY (DWX2304)
A 3/4 F
SM
CDJ-1000MK2
23

3.6 MAIN ASSY (4/4)



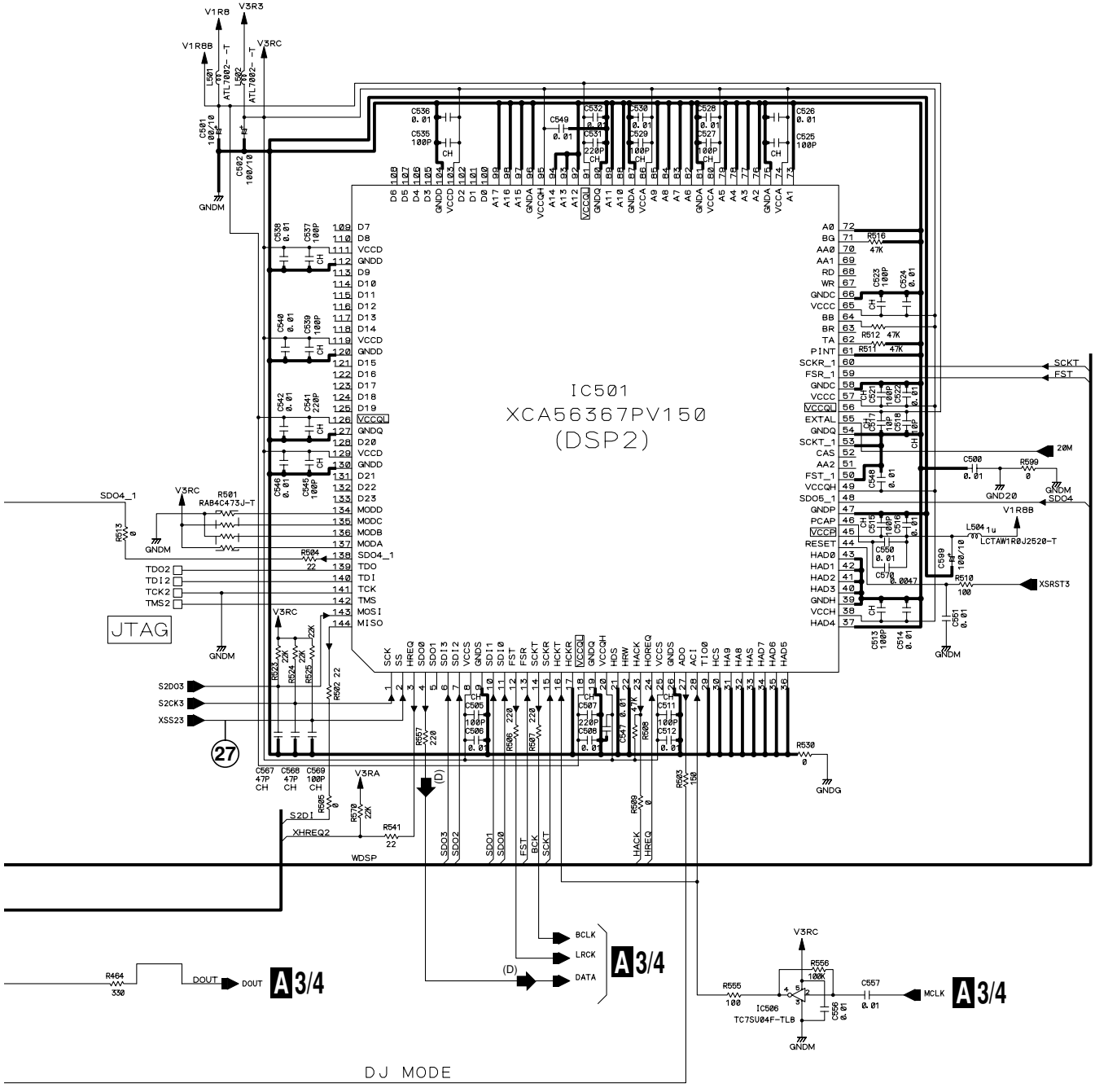
	G, /G	A1	Y1	A2	Y2
DJ	H	*	Z	L	L
	H	*	Z	H	H
NORMAL	L	L	L	*	Z
	L	H	H	*	Z

: The power supply is shown with the marked box.

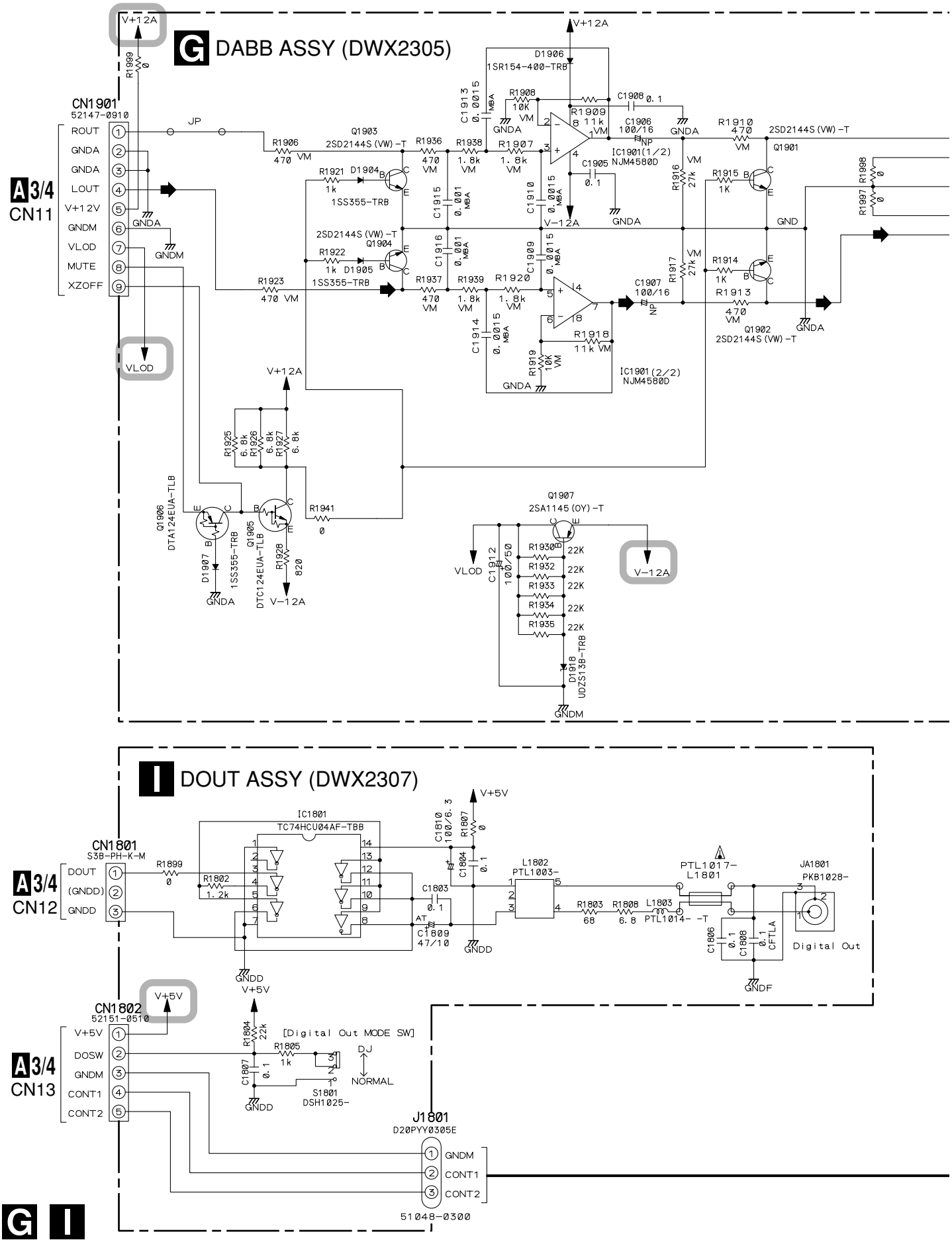
(D) : DIGITAL DATA SIGNAL ROUTE

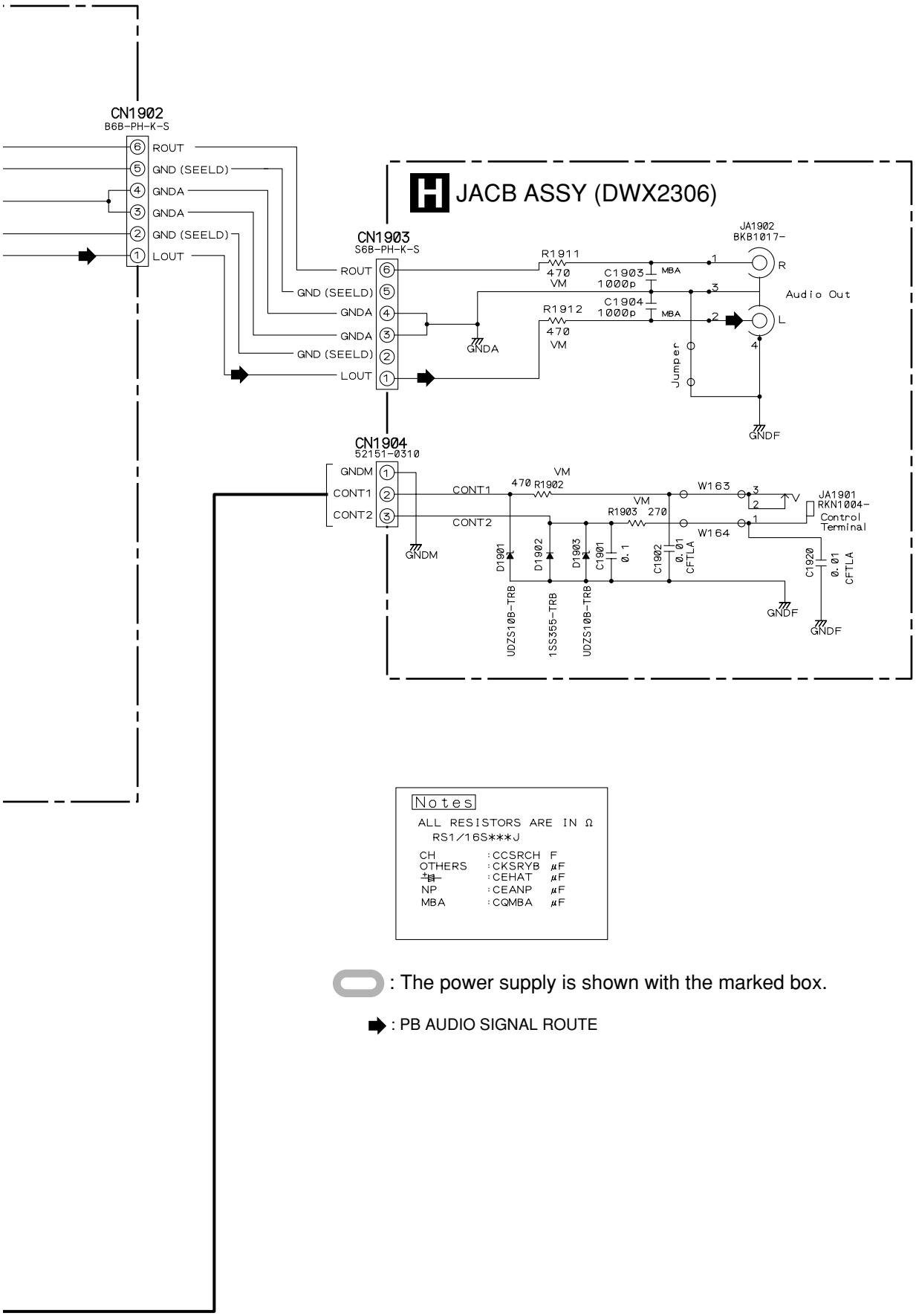
Notes
ALL RESISTORS ARE IN Ω
RS1/16S***J

YF :CKSRYF μF
CH :CCSRCH F
OTHERS :CKSRYB μF
:CEHAR μF



3.7 DABB, JACB and DOUT ASSYS





Notes

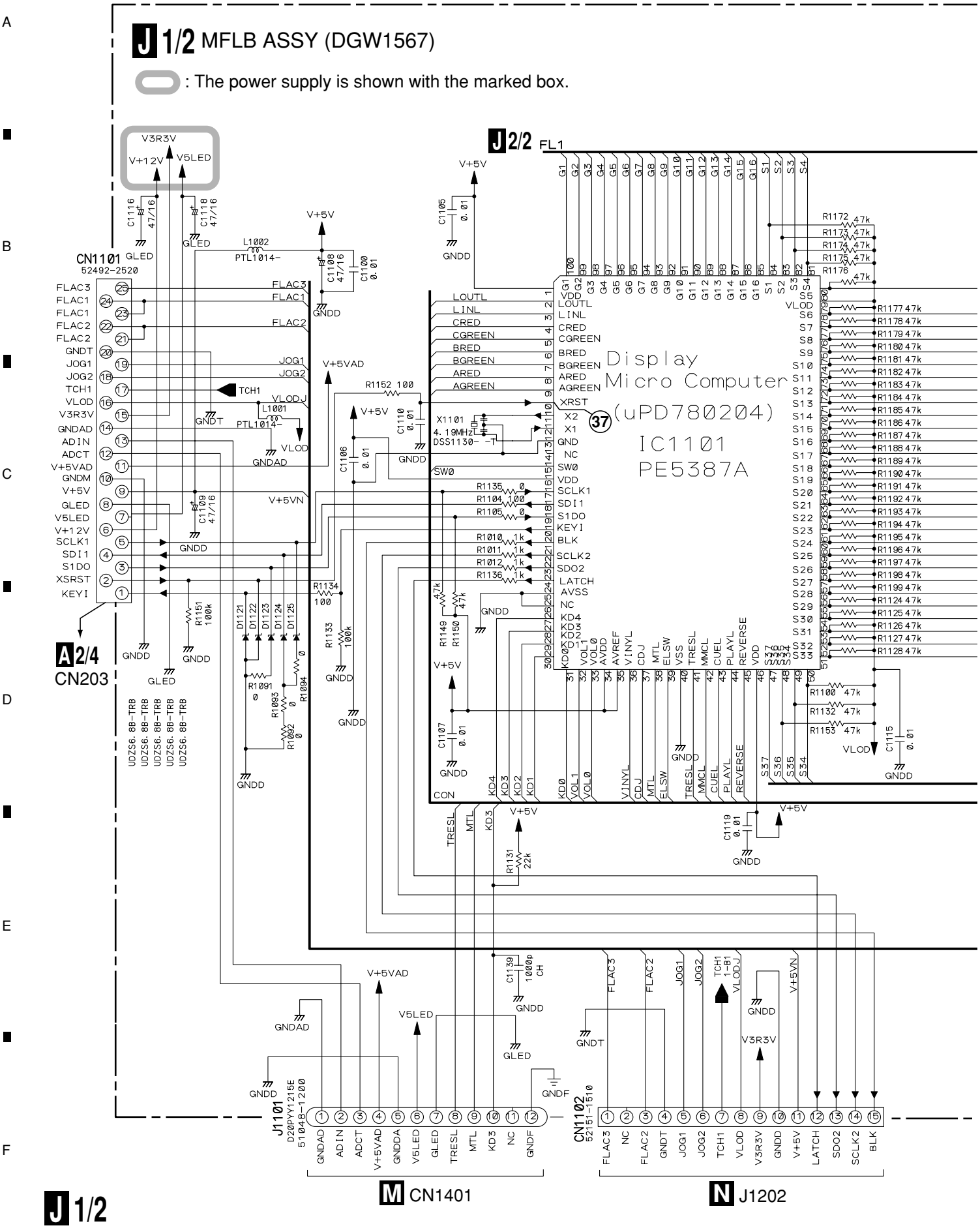
ALL RESISTORS ARE IN Ω
RS1/16S***J

CH	:CCSRCH	F
OTHERS	:CKSRYB	μF
±	:CEHAT	μF
NP	:CEANP	μF
MBA	:CQMBA	μF

: The power supply is shown with the marked box.

: PB AUDIO SIGNAL ROUTE

3.8 MFLB (1/2) and RSWB ASSYS



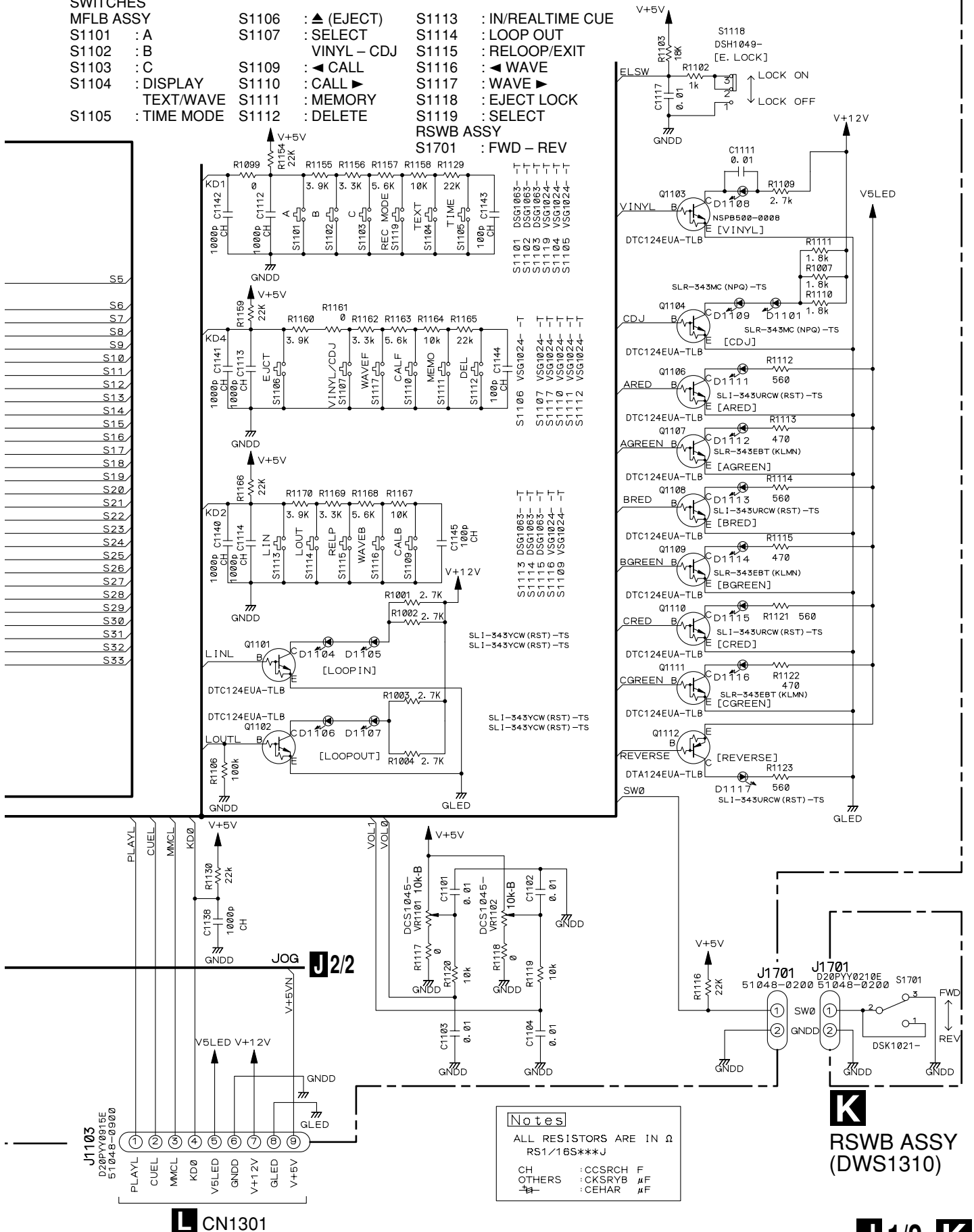
SWITCHES

MFLB ASSY

S1101 : A
S1102 : B
S1103 : C
S1104 : DISPLAY
TEXT/WAVE
S1105 : TIME MODE
S1106 : ▲ (EJECT)
S1107 : SELECT
VINYL – CDJ
S1109 : ◄ CALL
S1110 : CALL ►
S1111 : MEMORY
S1112 : DELETE
S1113 : IN/REALTIME CUE
S1114 : LOOP OUT
S1115 : RELOOP/EXIT
S1116 : ◄ WAVE
S1117 : WAVE ►
S1118 : EJECT LOCK
S1119 : SELECT

RSWB ASSY

S1701 : FWD – REV

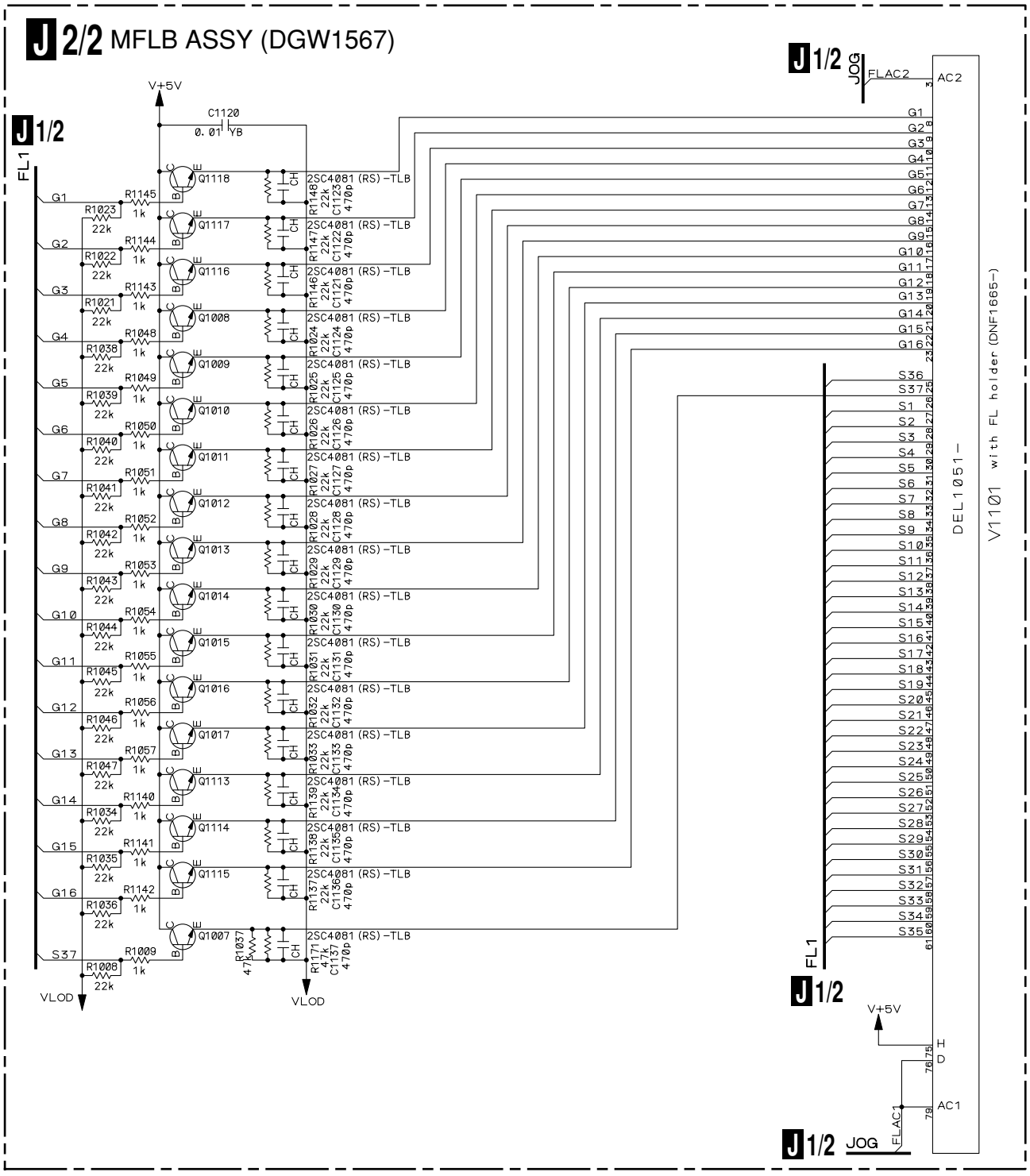


Notes

ALL RESISTORS ARE IN Ω
RS1/16S***J

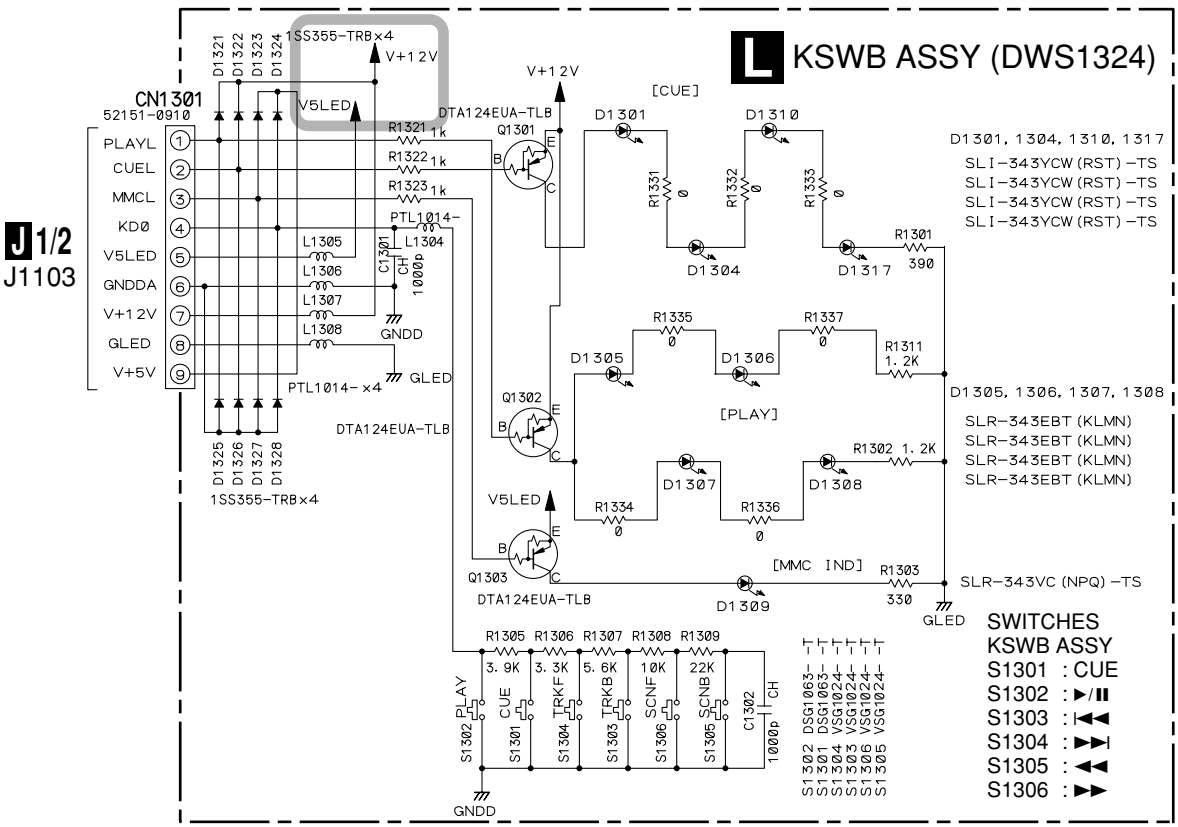
CH : CCSRCH F
OTHERS : CKSRYB μF
: CEHAR μF

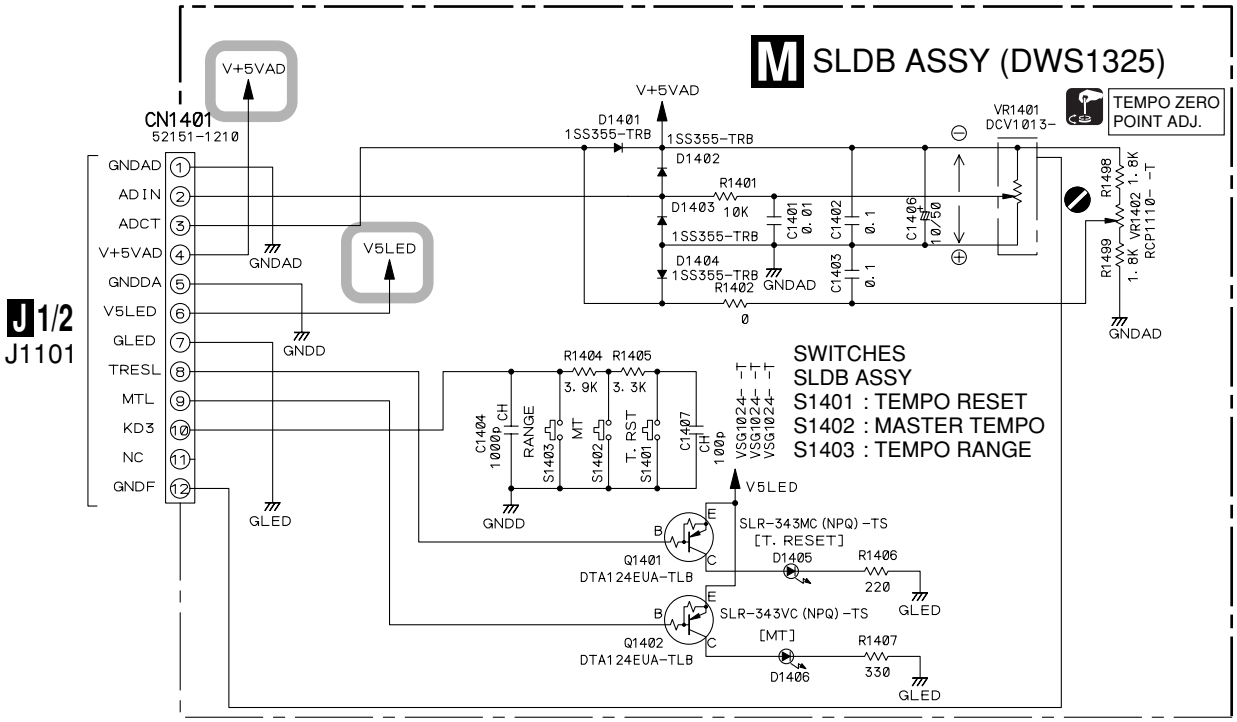
3.9 MFLB (2/2) ASSY



J 2/2

3.10 KSWB and SLDB ASSYS

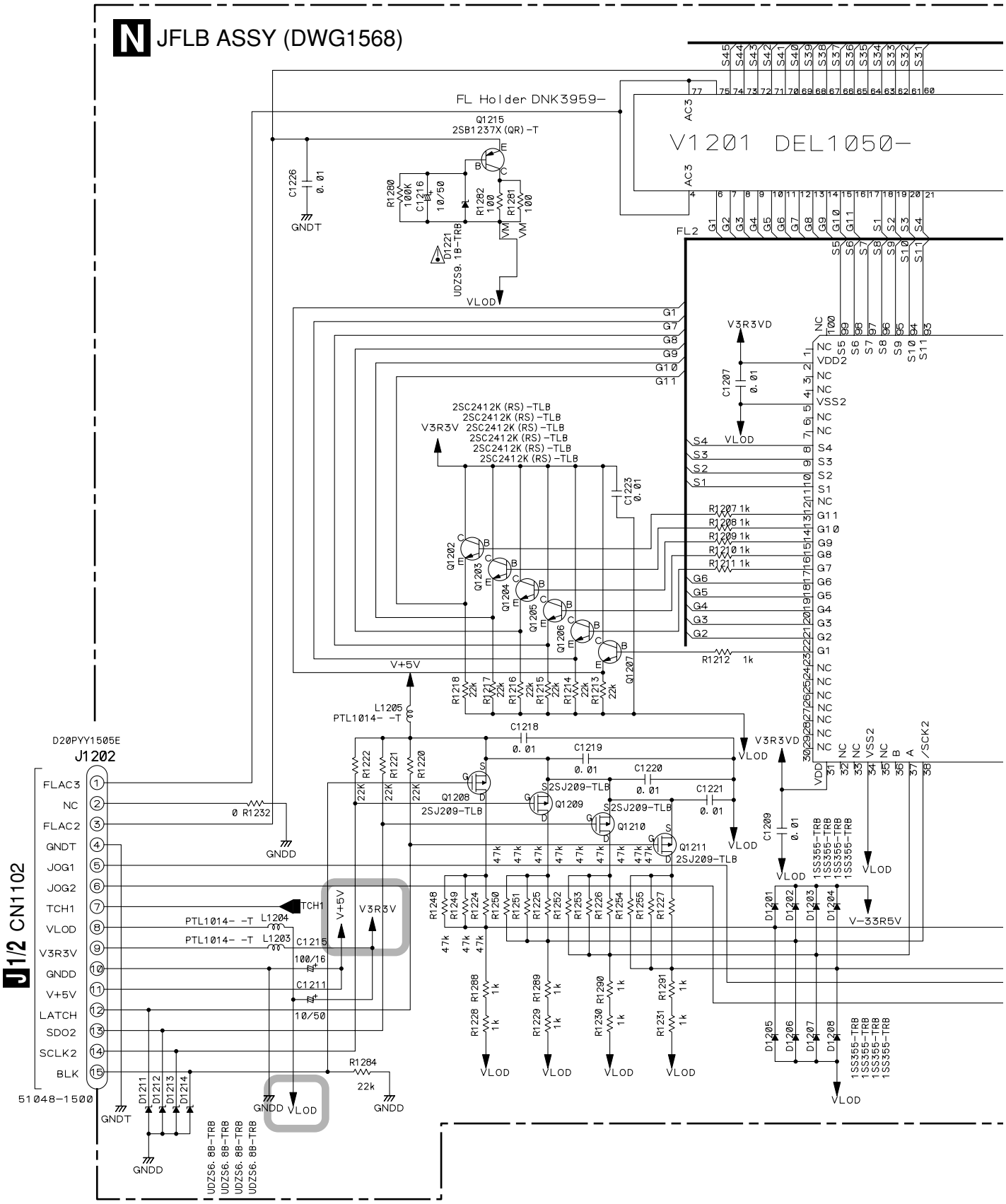


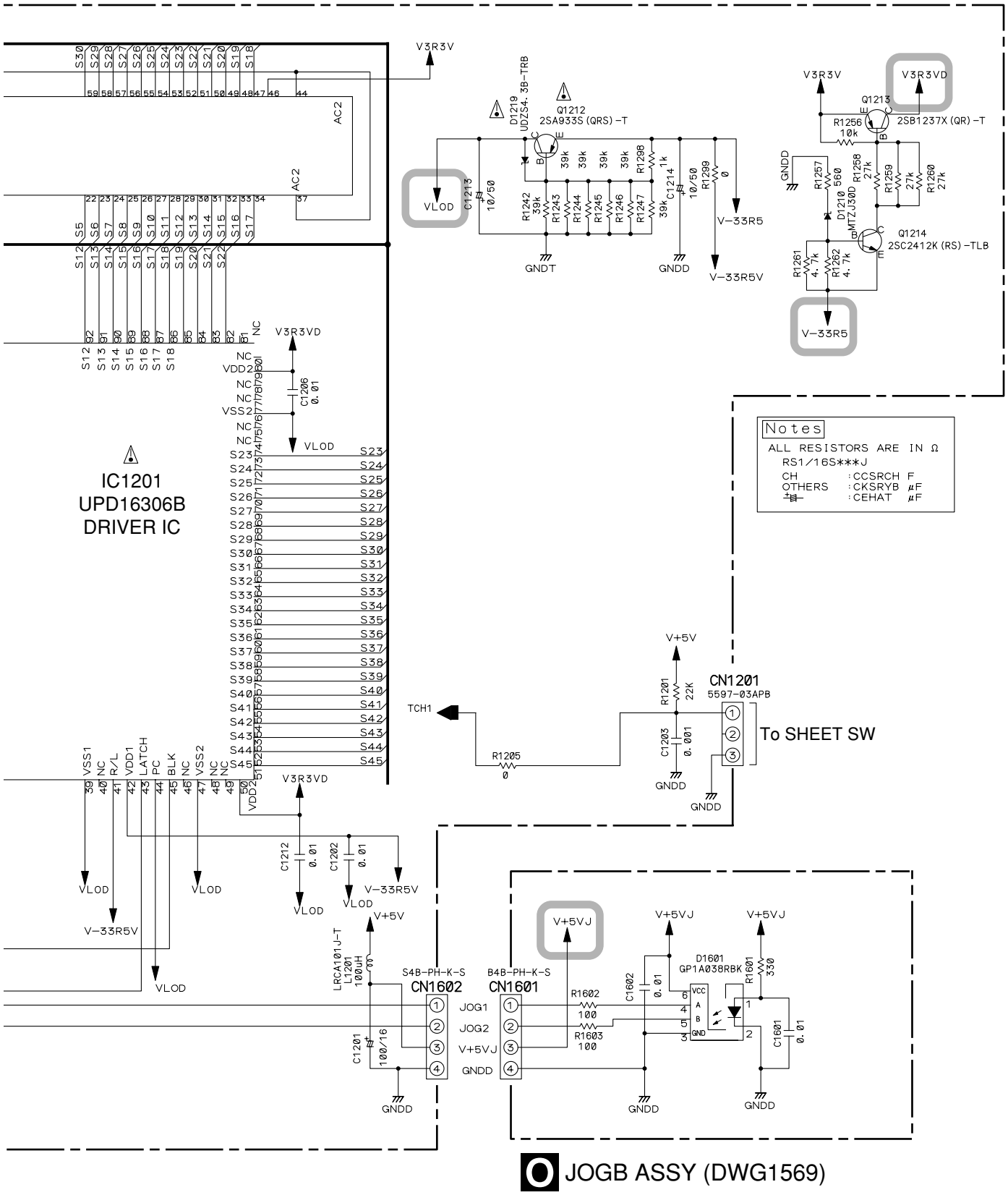


Notes
ALL RESISTORS ARE IN Ω
RS1/16S***J
YF :CKSRYF μF
CH :CCSRCH F
OTHERS :CKSRYB μF
:CEHAT μF

: The power supply is shown with the marked box.

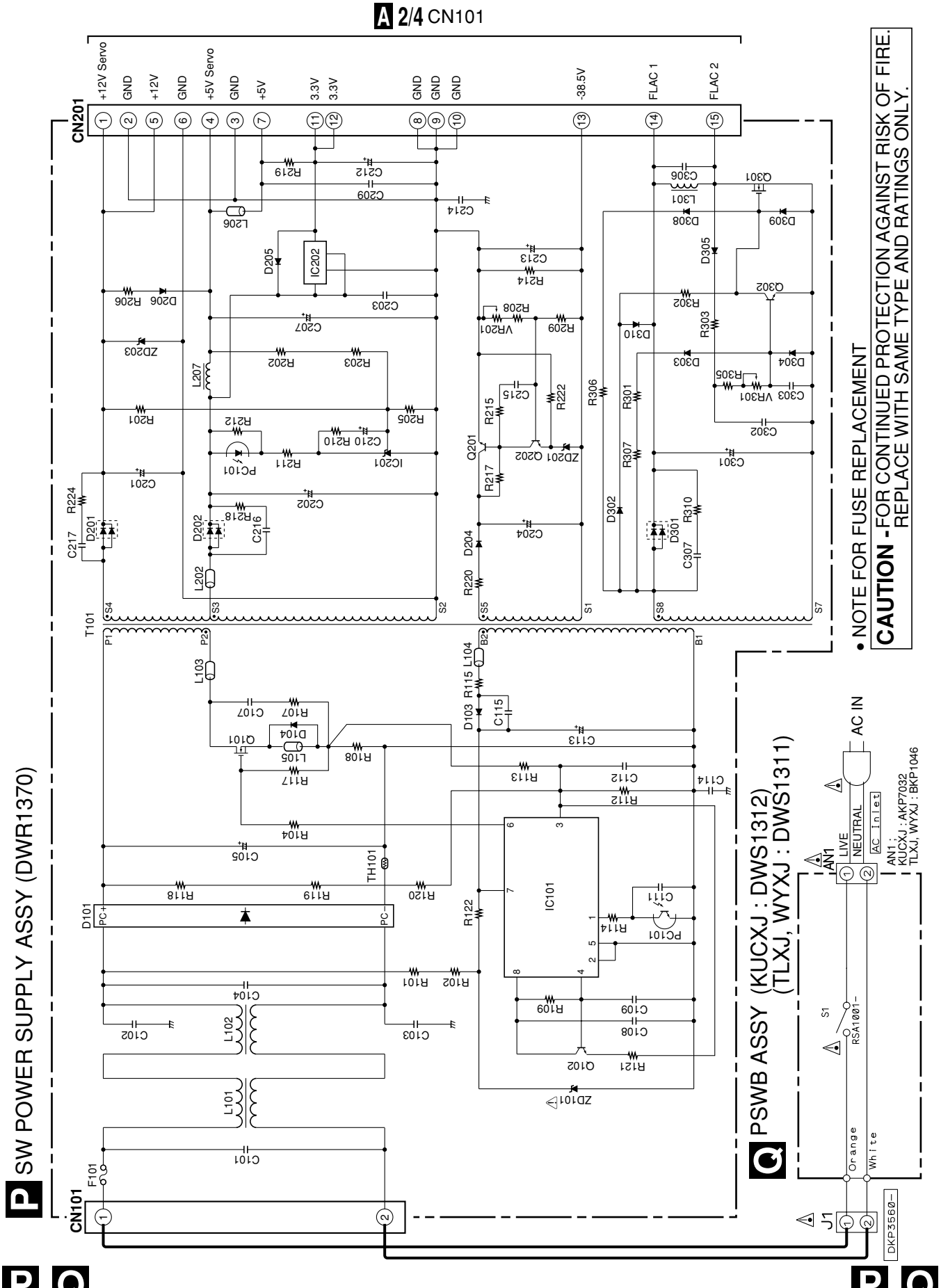
3.11 JFLB and JOGB ASSYS





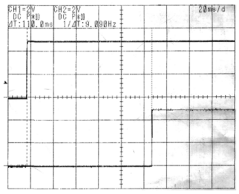
: The power supply is shown with the marked box.

3.12 SW POWER SUPPLY and PSWB ASSYS

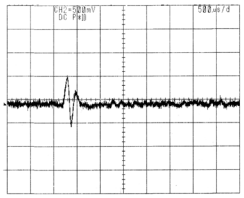


■ WAVEFORMS

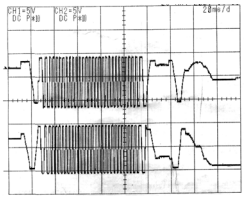
A 2/4 MAIN ASSY
Mode: Power ON
① **IC201- 63pin (XRST)**
V: 2V/div. H: 20mS/div.
② **IC201- 19pin (XSRST)**
V: 2V/div. H: 20mS/div.



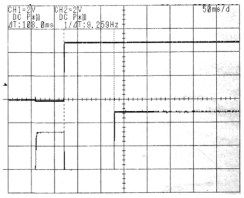
A 1/4 MAIN ASSY
Mode: 1track Jump
④ **IC800- 18pin (TE)**
V: 500mV/div. H: 500µS/div.



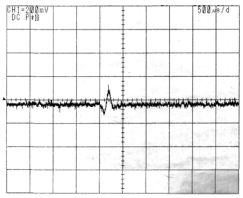
A 1/4 MAIN ASSY
Mode: Search
⑫ **IC950- 8pin (ST1+)**
V: 5V/div. H: 20mS/div.
⑬ **IC950- 6pin (ST2+)**
V: 5V/div. H: 20mS/div.



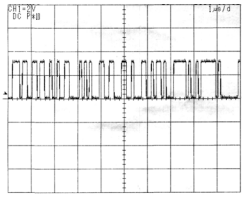
A 2/4, 3/4 MAIN ASSY
Mode: Power ON
① **IC201- 63pin (XRST)**
V: 2V/div. H: 50mS/div.
③ **IC601- 89pin (XFRST)**
V: 2V/div. H: 50mS/div.



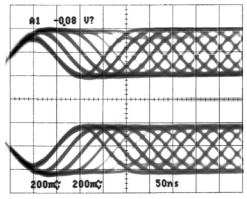
A 1/4 MAIN ASSY
Mode: Focus Up/Down
⑥ **IC800- 22pin (FE)**
V: 200mV/div. H: 500µS/div.



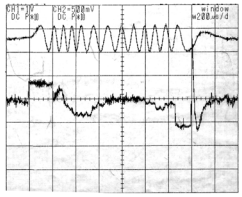
A 3/4 MAIN ASSY
Mode: Play
⑭ **IC601- 162pin (SDATA)**
V: 2V/div. H: 1µS/div.



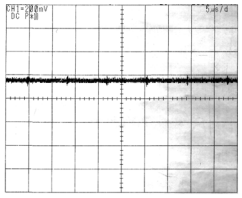
A 1/4 MAIN ASSY
Mode: 3100rpm/ Inside Play
⑱ **IC700- 8pin (ARF)**
V: 200mV/div. H: 50nS/div.
⑲ **IC700- 9pin (NARF)**
V: 200mV/div. H: 50nS/div.



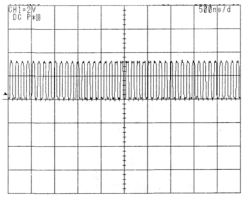
A 1/4 MAIN ASSY
Mode: Search
④ **IC800- 18pin (TE)**
V: 1V/div. H: 200µS/div.
⑤ **IC950- 11pin (T+)**
V: 500mV/div. H: 200µS/div.



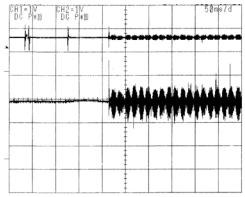
A 1/4 MAIN ASSY
Mode: Play
⑩ **IC700- 6pin (TEDRV)**
V: 200mV/div. H: 5µS/div.



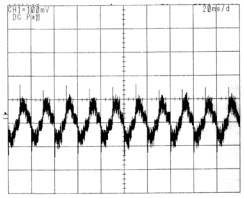
A 3/4 MAIN ASSY
Mode: Play
⑮ **IC601- 182pin (BCK)**
V: 2V/div. H: 500nS/div.



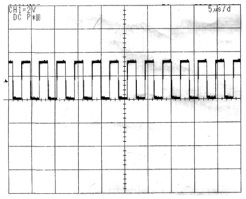
A 1/4 MAIN ASSY
Mode: Focus
⑥ **IC800- 22pin (FE)**
V: 1V/div. H: 50mS/div.
⑦ **IC950- 13pin (F+)**
V: 1V/div. H: 50mS/div.



A 1/4 MAIN ASSY
Mode: Play
⑪ **IC700- 5pin (FEDRV)**
V: 100mV/div. H: 20mS/div.

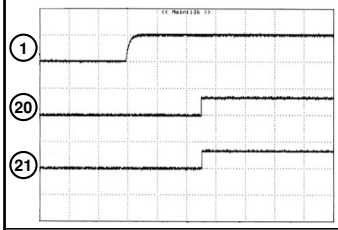


A 3/4 MAIN ASSY
Mode: Play
⑯ **IC601- 168pin (LRCK)**
V: 2V/div. H: 5µS/div.

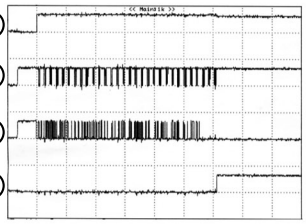


A MAIN ASSY J MFLB ASSY

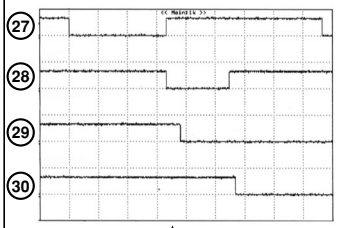
A 2/4 (1) IC201 - pin 63 [XRST]
V: 5V/div. H: 1msec/div.
A 3/4 (20) IC601 - pin 106 [PRGM]
V: 5V/div. H: 1msec/div.
A 2/4 (21) IC201 - pin 100 [XINT]
V: 5V/div. H: 1msec/div.



A 2/4 (21) IC201 - pin 100 [XINT]
V: 5V/div. H: 100msec/div.
A 3/4 (24) IC601 - pin 155 [S2CK53]
V: 5V/div. H: 100msec/div.
A 3/4 (25) IC601 - pin 153 [S2D03N]
V: 5V/div. H: 100msec/div.
A 2/4 (26) IC201 - pin 60 [D0NE]
V: 5V/div. H: 100msec/div.



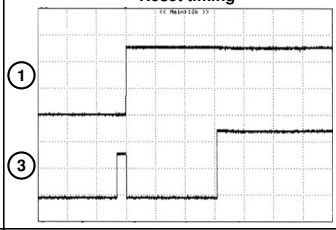
A 4/4 (27) IC501 - pin 2 [XSS23]
V: 5V/div. H: 500µsec/div.
A 4/4 (28) IC401 - pin 2 [XSS13]
V: 5V/div. H: 500µsec/div.
A 4/4 (29) IC401 - pin 23 [HACK]
V: 5V/div. H: 500µsec/div.
A 2/4 (30) IC201 - pin 2 [DGP2]
V: 5V/div. H: 500µsec/div.



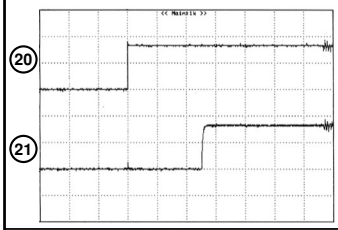
Zoom-up

A 2/4 (1) IC201 - pin 63 [XRST]
V: 2V/div. H: 200msec/div.
A 3/4 (3) IC601 - pin 89 [XFRST]
V: 2V/div. H: 200msec/div.

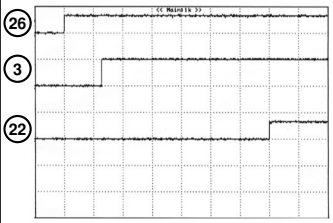
Reset timing



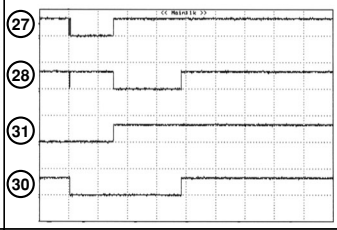
A 3/4 (20) IC601 - pin 106 [PRGM]
V: 2V/div. H: 5µsec/div.
A 2/4 (21) IC201 - pin 100 [XINT]
V: 2V/div. H: 5µsec/div.



A 2/4 (26) IC201 - pin 60 [D0NE]
V: 5V/div. H: 1msec/div.
A 3/4 (3) IC601 - pin 89 [XFRST]
V: 5V/div. H: 1msec/div.
A 4/4 (22) IC405 - pin 15 [XSRST3]
V: 5V/div. H: 1msec/div.

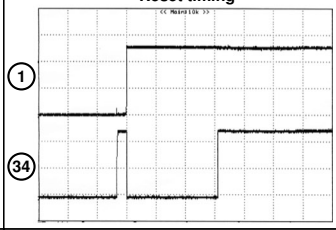


A 4/4 (27) IC501 - pin 2 [XSS23]
V: 5V/div. H: 50msec/div.
A 4/4 (28) IC401 - pin 2 [XSS13]
V: 5V/div. H: 50msec/div.
A 4/4 (31) IC401 - pin 10 [SD04_1]
V: 5V/div. H: 50msec/div.
A 2/4 (30) IC201 - pin 2 [DGP2]
V: 5V/div. H: 50msec/div.

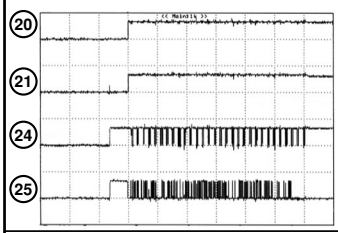


A 2/4 (1) IC201 - pin 63 [XRST]
V: 2V/div. H: 200msec/div.
(34) IC201 - pin 25 [XDRST]
V: 2V/div. H: 200msec/div.

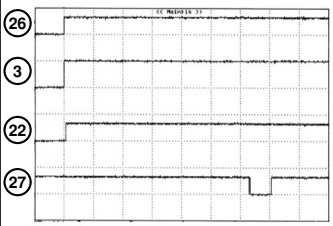
Reset timing



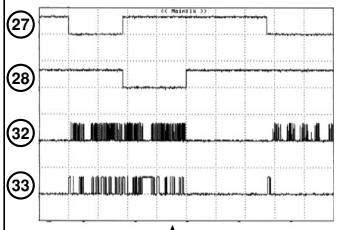
A 3/4 (20) IC601 - pin 106 [PRGM]
V: 5V/div. H: 100msec/div.
A 2/4 (21) IC201 - pin 100 [XINT]
V: 5V/div. H: 100msec/div.
A 3/4 (24) IC601 - pin 155 [S2CK53]
V: 5V/div. H: 100msec/div.
A 3/4 (25) IC601 - pin 153 [S2D03N]
V: 5V/div. H: 100msec/div.



A 2/4 (26) IC201 - pin 60 [D0NE]
V: 5V/div. H: 100msec/div.
A 3/4 (3) IC601 - pin 89 [XFRST]
V: 5V/div. H: 100msec/div.
A 4/4 (22) IC405 - pin 15 [XSRST3]
V: 5V/div. H: 100msec/div.
A 4/4 (27) IC501 - pin 2 [XSS23]
V: 5V/div. H: 100msec/div.



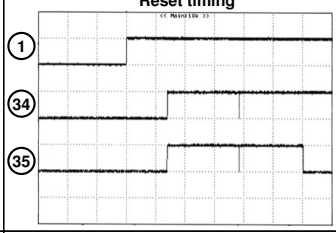
A 4/4 (27) IC501 - pin 2 [XSS23]
V: 5V/div. H: 500µsec/div.
(28) IC401 - pin 2 [XSS13]
V: 5V/div. H: 500µsec/div.
(32) IC401 - pin 1 [S2CK3]
V: 5V/div. H: 500µsec/div.
(33) IC401 - pin 143 [S2D03]
V: 5V/div. H: 500µsec/div.



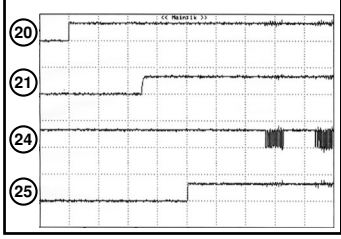
Zoom-up

A 2/4 (1) IC201 - pin 63 [XRST]
V: 5V/div. H: 500msec/div.
(43) IC300 - pin 7 [XDSCRST]
V: 5V/div. H: 500msec/div.
(35) IC300 - pin 6 [XFEPRST]
V: 5V/div. H: 500msec/div.

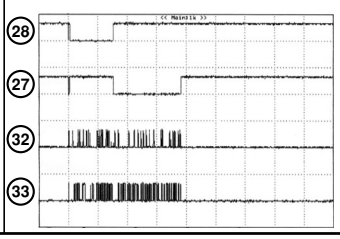
Reset timing



A 3/4 (20) IC601 - pin 106 [PRGM]
V: 5V/div. H: 5µsec/div.
A 2/4 (21) IC201 - pin 100 [XINT]
V: 5V/div. H: 5µsec/div.
A 3/4 (24) IC601 - pin 155 [S2CK53]
V: 5V/div. H: 5µsec/div.
A 3/4 (25) IC601 - pin 153 [S2D03N]
V: 5V/div. H: 5µsec/div.

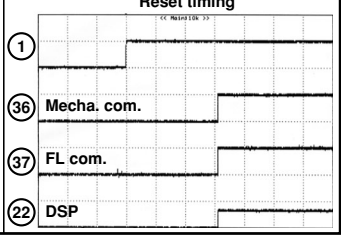


A 4/4 (28) IC401 - pin 2 [XSS13]
V: 5V/div. H: 50msec/div.
(27) IC501 - pin 2 [XSS23]
V: 5V/div. H: 50msec/div.
(32) IC401 - pin 1 [S2CK3]
V: 5V/div. H: 50msec/div.
(33) IC401 - pin 143 [S2D03]
V: 5V/div. H: 50msec/div.



A 2/4 (1) IC201 - pin 63 [XRST]
V: 5V/div. H: 200msec/div.
A 2/4 (36) IC300 - pin 63 [XSRST]
V: 5V/div. H: 200msec/div.
J 1/2 (37) IC1101 - pin 10 [XSRST]
V: 5V/div. H: 200msec/div.
A 4/4 (22) IC405 - pin 15 [XSRST]
V: 5V/div. H: 200msec/div.

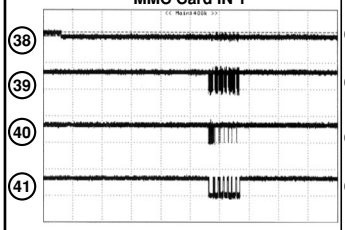
Reset timing



A MAIN ASSY

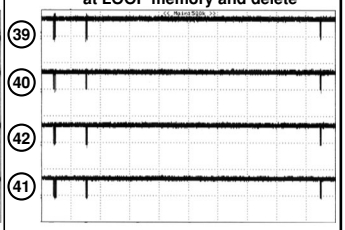
A 3/4 (38) **CN999 - pin 10 [XMDT]**
V: 5V/div. H: 200msec/div.
(39) **CN999 - pin 5 [SMCK]**
V: 5V/div. H: 200msec/div.
(40) **CN999 - pin 2 [S1D0]**
V: 5V/div. H: 200msec/div.
(41) **CN999 - pin 1 [XMEN]**
V: 5V/div. H: 200msec/div.

MMC Card IN 1



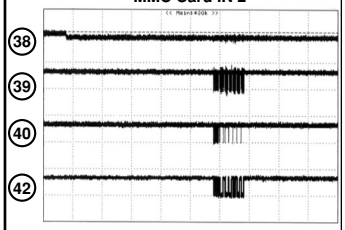
A 3/4 (39) **CN999 - pin 5 [SMCK]**
V: 5V/div. H: 1sec/div.
(40) **CN999 - pin 2 [S1D0]**
V: 5V/div. H: 1sec/div.
(42) **CN999 - pin 7 [SMDI]**
V: 5V/div. H: 1sec/div.
(41) **CN999 - pin 1 [XMEN]**
V: 5V/div. H: 1sec/div.

at LOOP memory and delete



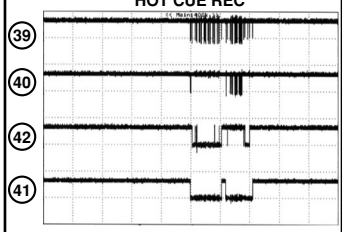
A 3/4 (38) **CN999 - pin 10 [XMDT]**
V: 5V/div. H: 200msec/div.
(39) **CN999 - pin 5 [SMCK]**
V: 5V/div. H: 200msec/div.
(40) **CN999 - pin 2 [S1D0]**
V: 5V/div. H: 200msec/div.
(42) **CN999 - pin 7 [SMDI]**
V: 5V/div. H: 200msec/div.

MMC Card IN 2



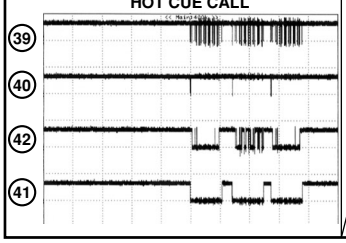
A 3/4 (39) **CN999 - pin 5 [SMCK]**
V: 5V/div. H: 20msec/div.
(40) **CN999 - pin 2 [S1D0]**
V: 5V/div. H: 20msec/div.
(42) **CN999 - pin 7 [SMDI]**
V: 5V/div. H: 20msec/div.
(41) **CN999 - pin 1 [XMEN]**
V: 5V/div. H: 20msec/div.

HOT CUE REC



A 3/4 (39) **CN999 - pin 5 [SMCK]**
V: 5V/div. H: 20msec/div.
(40) **CN999 - pin 2 [S1D0]**
V: 5V/div. H: 20msec/div.
(42) **CN999 - pin 7 [SMDI]**
V: 5V/div. H: 20msec/div.
(41) **CN999 - pin 1 [XMEN]**
V: 5V/div. H: 20msec/div.

HOT CUE CALL



VOLTAGES

Voltage measurement mode
DJ MODE: PLAY , VINAL , MMC IN , MASTER TEMPO: OFF , SRIDER: 0%, HOT CUE: OFF

A 1/4 MAIN ASSY

IC700 (MN677061ZY)

Pin No.	Voltage (V)
1	2.1
2	1.4
3	1.6
4	3.3
5	1.6
6	1.6
7	0
8	1.6
9	1.6
10	1.5
11	1.5
12	1.6
13	1.5
14	3.3
15	1.7
16	2.2
17	0.2
18	2.1
19	1.4
20	0
21	1
22	1
23	2
24	1.6
25	1.1
26	1.1
27	3.3
28	1.1
29	1.1
30	0
31	1
32	1
33	1.6
34	1.6
35	1
36	1.2
37	1.6
38	3.3
39	0
40	1.6
41	0
42	1.6
43	0
44	1.8
45	0
46	3.3
47	0
48	1.6
49	0
50	0
51	1.7
52	1.9
53	1.5
54	1.1
55	1.1
56	1.1
57	0
58	2.4
59	0
60	0
61	1.6
62	0
63	0.3
64	0
65	0
66	0
67	0
68	1.6
69	0.2
70	0.1
71	3.2
72	0
73	0
74	0
75	3.3
76	1.7
77	0
78	0
79	1.7
80	1.6
81	0
82	3.3
83	-
84	4.9
85	4.8
86	4.9
87	3.2
88	4.9
89	4.8
90	0.7

IC700 (MN677061ZY)

Pin No.	Voltage (V)
91	0 to 3.2
92	0
93	0
94	1.6
95	0
96	2.4
97	1.7
98	1.7
99	1.6
100	2.3

IC701 (TC7WU04FU)

Pin No.	Voltage (V)
1	1.7
2	1.7
3	3.3
4	0
5	0
6	1.7
7	1.6
8	3.3

IC710 (TC7SET08FU)

Pin No.	Voltage (V)
1	0
2	0 to 4.9
3	0
4	0
5	3.3

IC711(TC7SET32FU)

Pin No.	Voltage (V)
1	0
2	0
3	0
4	0
5	3.3

IC800 (AN8702NFH)

Pin No.	Voltage (V)
1	4.9
2	2.2
3	0.2
4	3.2
5	1.7
6	1.7
7	1.7
8	3.9
9	3.3
10	0
11	4.9
12	4.9
13	4.9
14	4.9
15	1.2
16	1.7
17	1.8
18	1.4
19	1.7
20	2.2
21	1.7
22	1.6
23	0
24	1.6
25	3.3
26	0
27	2.1
28	4.9
29	1.7
30	2
31	2
32	2
33	0
34	1.6
35	1.5
36	3.3
37	2
38	1
39	0
40	0
41	2.4
42	1.4
43	1.7
44	2.5
45	2.6
46	2.1
47	2
48	2
49	2.2
50	2.2
51	2.2
52	2.2
53	2.3
54	2.3
55	4.9
56	2.1
57	2.3
58	2.3
59	2.3
60	2.3
61	0
62	2.2
63	2.2
64	1.7

IC850 (BA10358F)

Pin No.	Voltage (V)
1	1.6
2	2.2
3	2.2
4	0
5	2.4
6	2.4
7	1.7
8	4.9

IC900 (LB11975)

Pin No.	Voltage (V)
1	10
2	10
3	10
4	10
5	0
6	0
7	0
8	11.8
9	11.8
10	0
11	2.4
12	2
13	0.1
14	1.7
15	1.9
16	4.9
17	0.1
18	0
19	1.8
20	1.8
21	1.8
22	1.8
23	1.8
24	1.8
25	5
26	2.8
27	1.5
28	5
29	0
30	11.7
31	11.8
32	0
33	0
34	0
35	0
36	0
37	10
38	10

IC950(LA6562)

Pin No.	Voltage (V)
1	4.9
2	4.9
3	11.8
4	0
5	5.5
6	3.7
7	7.6
8	5.4
9	5.7
10	0
11	2.5
12	2.5
13	2.5
14	2.5
15	5
16	1.6
17	1.6
18	1.6
19	1.6
20	1.6
21	1.6
22	1.3
23	1.6
24	1.6
25	5
26	5
27	5
28	1.6
29	0
30	1.6
31	1.6
32	1.6
33	1.3
34	1.6
35	1.6
36	1.6
37	0
38	0

A 2/4 MAIN ASSY

IC100 (PQ025EZ01ZP)

Pin No.	Voltage (V)
1	4.9
2	4.9
3	2.4
4	0
5	0

IC150 (PQ1R33)

Pin No.	Voltage (V)
1	4.9
2	0
3	1.3
4	3.3
5	0
6	4.9

IC202(BR24C64F)

Pin No.	Voltage (V)
1	0
2	0
3	0
4	0
5	5
6	5
7	0
8	5

IC203(TC74HC4053AFT)

Pin No.	Voltage (V)
1	5
2	0.1
3	5
4	4.9
5	4.9
6	0
7	0
8	0
9	0
10	0
11	0
12	4.2
13	5
14	4.2
15	0.2
16	5

IC204 (TC7SET08FU)

Pin No.	Voltage (V)
1	3.3
2	5
3	0
4	5
5	5

IC205 (TC74VHC08FT)

Pin No.	Voltage (V)
1	0
2	0
3	0
4	5
5	3.3
6	3.3
7	0
8	3.3
9	5
10	3.3
11	3.3
12	5
13	3.3
14	3.3

IC206(PQ1R33)

Pin No.	Voltage (V)
1	5
2	0
3	1.3
4	3.3
5	0
6	5

A 2/4 MAIN ASSY

IC300 (PD3446A8)

Pin No.	Voltage (V)
1	3.1
2	4.9
3	0
4	0
5	2.5
6	4.9
7	4.9
8	0
9	0
10	0
11	0
12	4.8
13	4.9
14	0.9
15	4.9
16	4.9
17	0
18	4.9
19	4.9
20	0to4.9
21	0
22	0
23	0
24	0 to 4.9
25	4.9
26	4.9
27	1.7
28	0.3
29	1
30	0.4 to 0.7
31	1
32	1
33	0.5 to 1
34	0.2 to 0.5
35	4.9
36	2.6 to 2.8
37	0.6
38	4.4
39	0.2
40	4.2 to 4.5
41	2
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	4.9
56	0
57	0
58	0
59	0
60	0 to 4.9
61	0
62	4.9
63	5
64	0
65	0
66	2.5
67	2.4
68	4.9
69	4.9
70	4.9
71	4.9
72	4.9
73	4.9
74	0
75	4.9
76	3.3
77	3.3
78	1.7
79	1.6
80	1.7
81	0
82	0
83	2 to 2.6
84	2 to 2.6
85	1.2 to 2.5
86	0
87	0
88	0.1
89	3.2
90	0

IC300 (PD3446A8)

Pin No.	Voltage (V)
91	0
92	0
93	0
94	0 to 2.6
95	4.9
96	4.8
97	0 to 2.3
98	0
99	4.9
100	1.5

IC201 (PD3445A8)

Pin No.	Voltage (V)
1	3.2
2	0
3	0
4	3.3
5	4.8
6	4.7
7	5
8	5
9	4.9
10	0
11	0
12	0.1
13	4.3
14	2.9
15	0.1 to 0.2
16	0
17	5
18	5
19	5
20	0
21	0
22	0
23	0
24	5
25	5
26	0
27	1.1
28	2.5
29	1.1
30	2.5
31	1.2
32	1.2
33	1.2
34	1.2
35	5
36	0
37	5
38	5
39	0
40	5
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	1
56	5
57	0
58	0
59	0
60	3.3
61	0
62	5
63	5
64	0
65	0
66	2.5
67	2.5
68	5
69	5
70	5
71	5
72	5
73	5
74	0
75	5

IC600 (M51957BFP)

Pin No.	Voltage (V)
1	0
2	1.4
3	0
4	0
5	1.2
6	5
7	5
8	0

IC201 (PD3445A8)

Pin No.	Voltage (V)
76	5
77	5
78	2.4
79	2.4
80	0
81	0
82	0
83	0
84	0
85	0
86	0
87	5
88	0
89	3.3
90	0
91	0
92	0
93	5
94	5
95	5
96	5
97	5
98	0
99	5
100	3.1

A 3/4 MAIN ASSY

IC10 (BA178M05FP)

Pin No.	Voltage (V)
1	11.8
2	0
3	5

IC11(PE8001A)

Pin No.	Voltage (V)
1	-
2	-
3	-
4	-
5	2.4
6	-
7	0
8	5
9	5
10	0
11	-
12	-
13	2.5
14	0
15	5
16	2.5
17	-
18	-
19	0
20	5
21	4.4
22	5
23	0
24	-
25	-
26	0.1
27	4.9
28	5

IC12 (TC74HCT7007AF)

Pin No.	Voltage (V)
1	1.6
2	2.5
3	1.6
4	2.5
5	1.6
6	2.5
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	5

IC13 (TC7WU04FU)

Pin No.	Voltage (V)
1	2.6
2	2.6
3	0
4	0
5	5
6	2.6
7	2.4
8	5

IC606 (K4S641632F)

Pin No.	Voltage (V)
1	3.3
2	2.1
3	3.3
4	2.1
5	2.1
6	0
7	2.1
8	2.1
9	3.3
10	2.1
11	2.1
12	0
13	2.1
14	3.3
15	0
16	3.3
17	2.7
18	2.7
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	3.3
28	0
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	2.3
38	1.3
39	0
40	0
41	0
42	2.1
43	3.3
44	2.1
45	2.1
46	0
47	2.1
48	2.1
49	3.3
50	2.1
51	2.1
52	0
53	2.1
54	0

IC607 (PQ025EZ01ZP)

Pin No.	Voltage (V)
1	3.3
2	3.3
3	2.5
4	0
5	0

IC608(TC7WU04FU)

Pin No.	Voltage (V)
1	1.6
2	1.6
3	0
4	0
5	3.3
6	1.7
7	1.7
8	3.3

IC610 (TC7SH08FU)

Pin No.	Voltage (V)
1	5
2	3.3
3	0
4	3.3
5	3.3

IC612 (TC7WU04FU)

Pin No.	Voltage (V)
1	1.8
2	1.8
3	0
4	0
5	3.3
6	1.7
7	1.7
8	3.3

A 3/4 MAIN ASSY

IC601 (XC2S50-5PQ208C)

Pin No.	Voltage (V)
1	0
2	0.2
3	2.1
4	2.1
5	2.1
6	2.1
7	2.1
8	2.1
9	2.1
10	2.1
11	0
12	3.3
13	2.5
14	2.1
15	2.1
16	2.1
17	2.1
18	2.1
19	0
20	2.1
21	2.1
22	2.1
23	1.3
24	2.3
25	0
26	3.3
27	0
28	2.5
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	3.3
37	2.7
38	2.5
39	3.3
40	0
41	2.7
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	3.3
51	0
52	3.3
53	3.3
54	0
55	2.5
56	0
57	5
58	0
59	5
60	5
61	0
62	1.1
63	1.1
64	0
65	3.3
66	2.5
67	1
68	1.1
69	2.4
70	2.5
71	1.2
72	0
73	2.4
74	0
75	0
76	2.5
77	1.6
78	3.3
79	0
80	0
81	0
82	0
83	0
84	0
85	0
86	0
87	0
88	0
89	5
90	0

IC601 (XC2S50-5PQ208C)

Pin No.	Voltage (V)
91	2.5
92	3.3
93	0
94	0
95	0
96	0
97	0
98	0
99	0
100	0
101	0
102	1.6
103	0
104	3.3
105	3.3
106	3.1
107	0
108	0
109	0
110	0
111	0
112	0
113	0
114	0
115	0
116	0
117	3.3
118	2.5
119	0
120	0
121	3.2
122	0
123	0
124	0
125	0
126	0
127	0.1
128	2.5
129	0
130	3.3
131	0
132	0
133	0
134	0
135	0
136	3.2
137	0
138	0
139	0
140	3.2
141	3
142	3.2
143	2.5
144	3.3
145	0
146	0
147	0
148	0
149	0
150	0
151	0
152	0
153	0.1
154	0
155	3.2
156	3.3
157	1.4
158	0
159	2.5
160	2.3
161	2.3
162	1.7
163	3.2
164	0.1
165	0.1
166	0.4
167	0.1
168	1.6
169	0
170	3.3
171	2.5
172	0
173	0
174	0
175	0
176	0
177	0
178	5
179	4.8
180	0

IC601 (XC2S50-5PQ208C)

Pin No.	Voltage (V)
181	0
182	1.6
183	0
184	3.3
185	1.6
186	2.5
187	2
188	4.2to4.5
189	0.2
190	0
191	4.4
192	0.6
193	2.6to2.8
194	0.2
195	1.8
196	2.5
197	3.3
198	0
199	1.7
200	1
201	1.1to1.5
202	0.3
203	1
204	1.5
205	0
206	0
207	2.5
208	3.3

A 4/4 MAIN ASSY

IC401(XCA56367PV150)

Pin No.	Voltage (V)
1	0.1
2	3.1
3	0.1
4	0.1
5	0.1
6	0.1
7	0.1
8	3.3
9	0
10	0.1
11	3.3
12	1.6
13	3.3
14	1.6
15	3.3
16	3.3
17	3.3
18	1.8
19	0
20	3.3
21	0
22	0
23	0.2
24	3.3
25	3.3
26	0
27	1.2
28	1.7
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	3.3
39	0
40	0
41	0
42	0
43	0
44	3.3
45	1.8
46	0.4
47	0
48	3.3
49	3.3
50	0
51	3.3
52	3.3
53	0
54	0
55	1.6
56	1.8
57	3.3
58	0
59	0
60	0
61	0
62	0
63	-
64	0
65	3.3
66	0
67	3.2
68	3
69	3.3
70	2.9
71	0
72	3.2
73	0
74	3.3
75	0
76	0
77	3.2
78	0
79	0
80	3.3
81	0

IC401(XCA56367PV15)

Pin No.	Voltage (V)
82	0
83	0
84	-
85	0
86	3.3
87	0
88	-
89	0
90	0
91	1.8
92	-
93	-
94	0
95	3.3
96	0
97	0
98	3.3
99	0
100	0
101	0
102	0
103	3.3
104	0
105	0
106	0
107	0
108	0
109	0
110	0.1
111	3.3
112	0
113	0
114	0
115	0
116	0
117	3.2
118	0
119	3.3
120	0
121	0
122	0
123	0
124	0
125	0
126	1.8
127	0
128	0
129	3.3
130	0
131	0
132	0
133	0
134	3.3
135	3.3
136	3.3
137	3.3
138	0
139	1.3
140	3.2
141	0
142	3.2
143	0.1
144	2.9

IC402(TC7WU04FU)

Pin No.	Voltage (V)
1	1.7
2	1.8
3	0
4	0
5	3.3
6	1.8
7	1.8
8	3.3

IC404 (MM1561JF)

Pin No.	Voltage (V)
1	1.8
2	0
3	0
4	0.6
5	3.3
6	0
7	3.3

IC405 (TC74VHC541FT)

Pin No.	Voltage (V)
1	0
2	0
3	0
4	1.1
5	5
6	4.9
7	0.1
8	4.7
9	4.8
10	0
11	3.1
12	3
13	0.1
14	3.2
15	3.3
16	0
17	0
18	0
19	0
20	3.3

IC407 (TC7S04FU)

Pin No.	Voltage (V)
1	0
2	3.2
3	0
4	0.1
5	3.3

IC605 (TC7WT241FU)

Pin No.	Voltage (V)
1	5
2	1.1
3	2.5
4	0
5	1.6
6	2.5
7	5
8	5

A 4/4 MAIN ASSY

IC501(XCA56367PV150)	
Pin No.	Voltage (V)
1	0.1
2	3
3	3.3
4	1.6
5	0
6	0.1
7	0.1
8	3.3
9	0
10	0.1
11	0.1
12	1.6
13	1.6
14	1.6
15	1.6
16	1.7
17	0
18	1.8
19	0
20	3.3
21	0
22	0
23	0.2
24	3.3
25	3.3
26	0
27	1.6
28	1.7
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	3.3
39	0
40	0
41	0
42	0
43	0
44	3.3
45	1.8
46	0.4
47	0
48	0.1
49	3.3
50	0
51	1
52	1
53	0
54	0
55	1.6
56	1.8
57	3.3
58	0
59	1.6
60	1.6
61	0
62	0
63	3.3
64	3.3
65	3.3
66	0
67	0.9
68	0.9
69	0.9
70	0.9
71	0
72	0
73	0
74	3.3
75	0
76	0
77	0
78	0
79	0
80	3.3
81	0
82	0
83	0
84	0
85	0
86	3.3
87	0
88	0
89	0
90	0

IC501(XCA56367PV150)	
Pin No.	Voltage (V)
91	1.8
92	0
93	0
94	0
95	3.3
96	0
97	0
98	0
99	0
100	0
101	0
102	0
103	3.3
104	0
105	3.3
106	0
107	0
108	0
109	0
110	3.3
111	3.3
112	0
113	0
114	3.2
115	3.2
116	0
117	0
118	0
119	3.3
120	0
121	0
122	0
123	0
124	0
125	0
126	1.8
127	0
128	0
129	3.3
130	0
131	0
132	0
133	0
134	0
135	3.2
136	0
137	3.2
138	3.3
139	1
140	3.2
141	0
142	3.2
143	0.1
144	2.9

J 1/2 MFLB ASSY

IC1101 (PE5387A)	
Pin No.	Voltage (V)
1	5
2	5
3	5
4	0
5	0
6	0
7	0
8	0
9	0
10	5
11	2.4
12	2.1
13	0
14	5
15	0
16	5
17	4.9
18	0.1
19	4.3
20	1
21	3.8
22	4.7
23	0.2
24	0
25	0
26	0
27	5
28	5
29	5
30	5
31	5
32	2.7
33	2.2
34	5
35	5
36	5
37	0
38	5
39	0.3
40	0
41	5
42	5
43	11.7
44	0
45	5
46	5
47	-28.6 to -30.5
48	-21.7 to -23.7
49	-14.7
50	-16.8
51	-12.9
52	-12.8
53	-12.7
54	-10.8
55	-12.8
56	-12.8
57	-8.9
58	-12.7
59	-16.7
60	-18.7
61	-20.6 to -21.1
62	-16.6
63	-30.3
64	-32.3
65	-34.3
66	-32.4
67	-32.3
68	-32.3
69	-32.3
70	-28.4 to -31.4
71	-28.3 to -29.1
72	-30.4 to -31.2
73	-31.7 to -33.4
74	-34.5 to -36.3
75	-34.8 to -35.3
76	-36.2 to -37.1
77	-30.6 to -31
78	-32.3 to -33.3
79	-38.4
80	-32.2 to -34.6
81	-32.9 to -36.2
82	-33.1 to -35.7
83	-32.4 to -35.9
84	-30.2 to -32.9
85	-36.4
86	-36.3
87	-36.4
88	-36.4
89	-36.4
90	-36.4

IC1101 (PE5387A)	
Pin No.	Voltage (V)
91	-36.4
92	-36.4
93	-36.4
94	-36.4
95	-36.4
96	-36.4
97	-36.4
98	-36.4
99	-36.4
100	-36.4

N JFLB ASSY

IC1201 (UPD16306B)	
Pin No.	Voltage (V)
1	0
2	3.2
3	0
4	0
5	-38.3
6	0
7	0
8	-26.9 to -27.8
9	-29.7 to -30.8
10	-27 to -27.9
11	-26.8 to -27.8
12	-38.4
13	-32.6
14	-32.6
15	-32.6
16	-32.6
17	-32.6
18	-33.1
19	-32.7
20	-32.8
21	-32.8
22	-32.8
23	-35.5
24	-38.4
25	-38.4
26	-38.4
27	-38.3
28	-38.3
29	-38.3
30	-38.3
31	3.2
32	0
33	0
34	-38.3
35	0
36	-33.6
37	-33.6
38	-37.9
39	-38.3
40	-35.5
41	-33.4
42	-33.4
43	-33.5
44	-38.3
45	-37.2
46	0
47	-38.3
48	0
49	0
50	3.2
51	-29.7 to -30.7
52	-29.7 to -30.7
53	-29.7 to -30.7
54	-29.7 to -30.7
55	-29.7 to -30.7
56	-29.7 to -30.7
57	-29.7 to -30.7
58	-29.7 to -30.7
59	-29.7 to -30.7
60	-29.7 to -30.7
61	-29.7 to -30.7
62	-29.7 to -30.7
63	-29.7 to -30.7
64	-29.7 to -30.7
65	-29.7 to -30.7
66	-29.7 to -30.7
67	-29.7 to -30.7
68	-29.7 to -30.7
69	-29.7 to -30.7
70	-29.7 to -30.7
71	-29.7 to -30.7
72	-29.7 to -30.7
73	-29.7 to -30.7
74	0
75	0
76	-38.3
77	0
78	0
79	3.2
80	0
81	0
82	-29.7 to -30.7
83	-29.7 to -30.7
84	-29.7 to -30.7
85	-29.7 to -30.7
86	-29.7 to -30.7
87	-29.7 to -30.7
88	-29.7 to -30.7
89	-29.7 to -30.7
90	-29.7 to -30.7

IC1201 (UPD16306B)	
Pin No.	Voltage (V)
91	-29.7 to -30.7
92	-29.7 to -30.7
93	-29.7 to -30.7
94	-29.7 to -30.7
95	-29.7 to -30.7
96	-29.7 to -30.7
97	-29.7 to -30.7
98	-29.7 to -30.7
99	-29.7 to -30.7
100	0

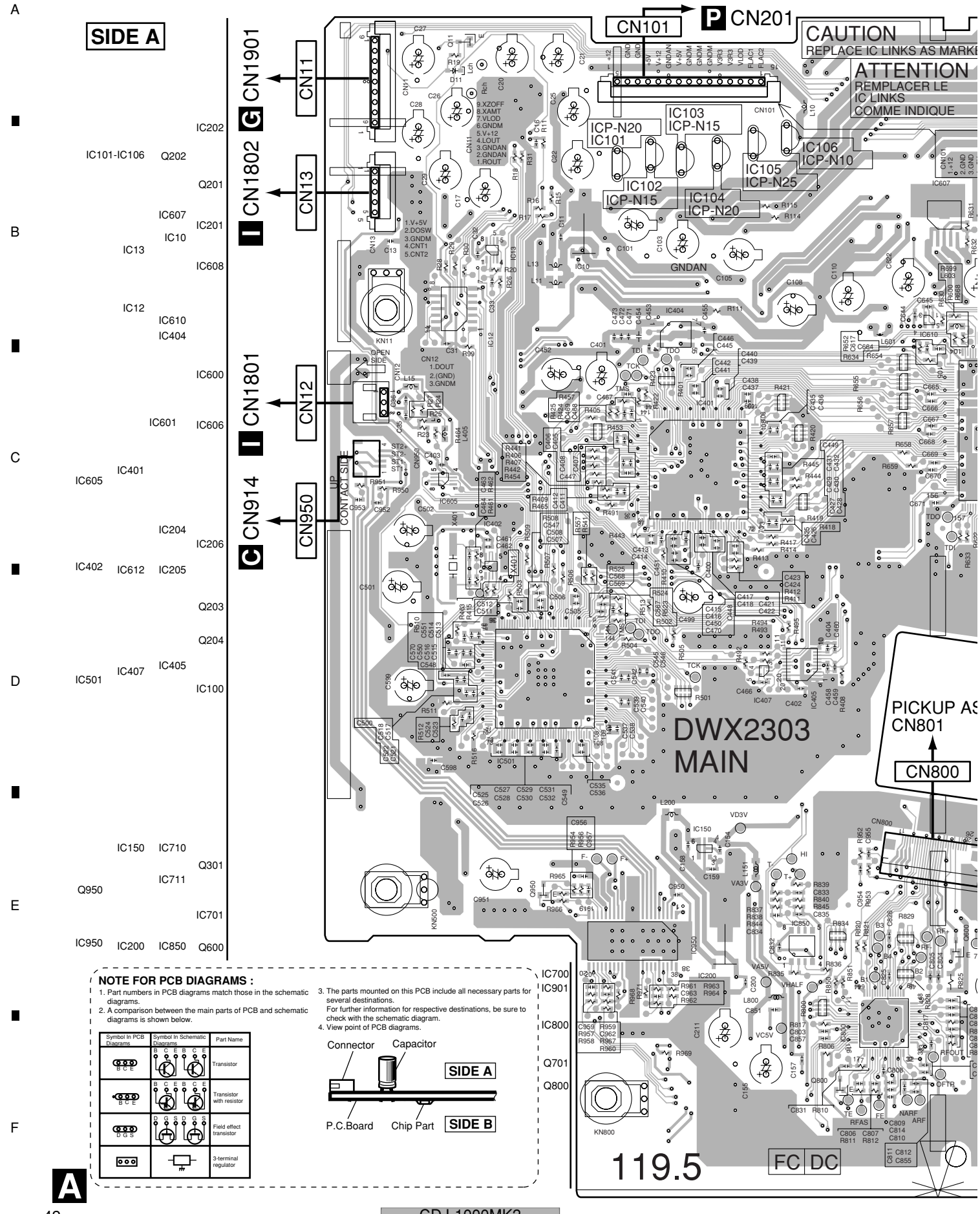
I DOUT ASSY

IC1801 (TC74HCU04AF)	
Pin No.	Voltage (V)
1	0
2	5
3	2.5
4	2.5
5	2.5
6	2.6
7	0
8	2.6
9	2.5
10	2.6
11	2.5
12	2.6
13	2.5
14	5

G DABB ASSY

IC1901 (NJM4580D)	
Pin No.	Voltage (V)
1	0
2	0
3	0
4	-13.1
5	0
6	0
7	0
8	11.2

4. PCB CONNECTION DIAGRAM
4.1 MAIN ASSY

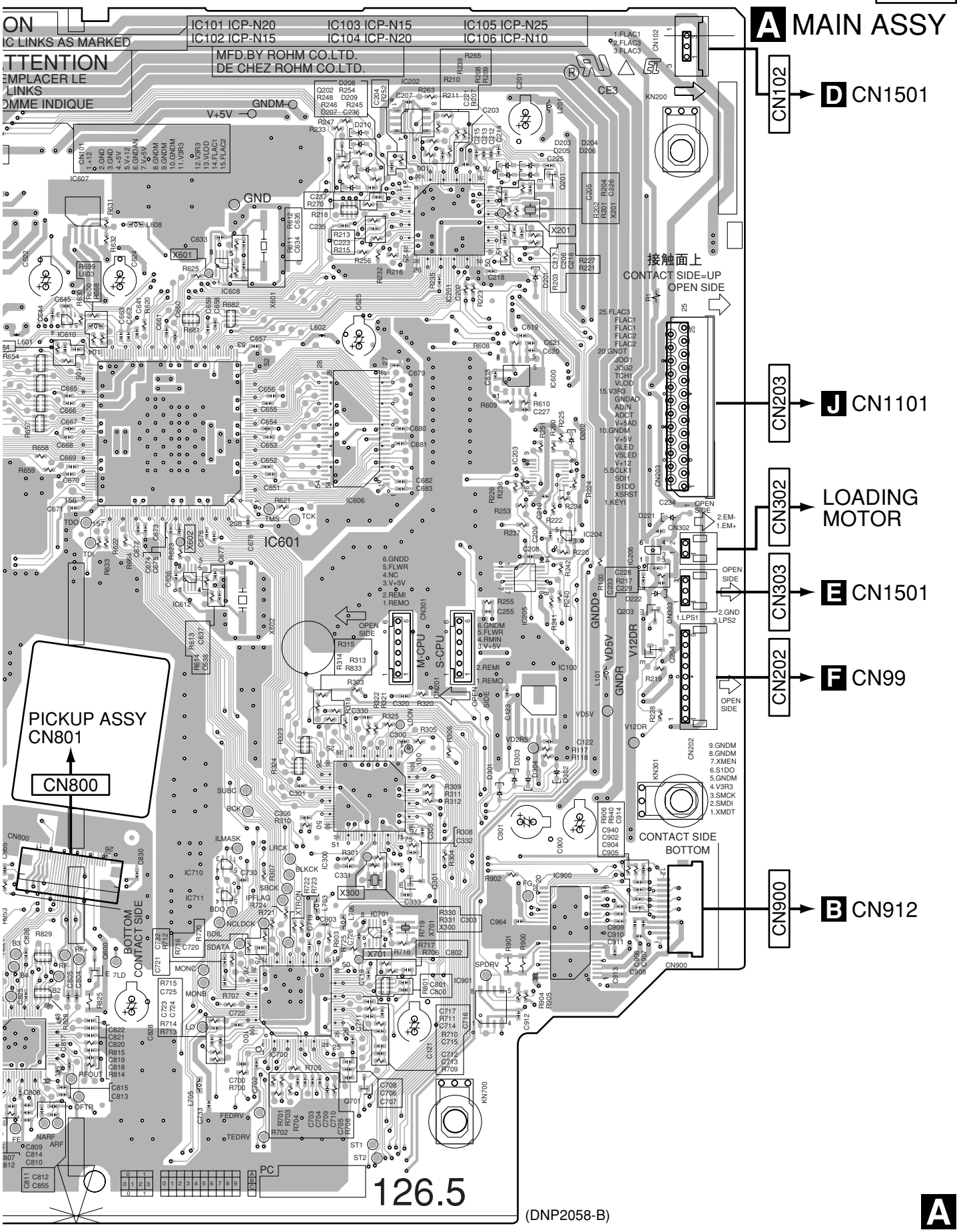


NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.
3. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

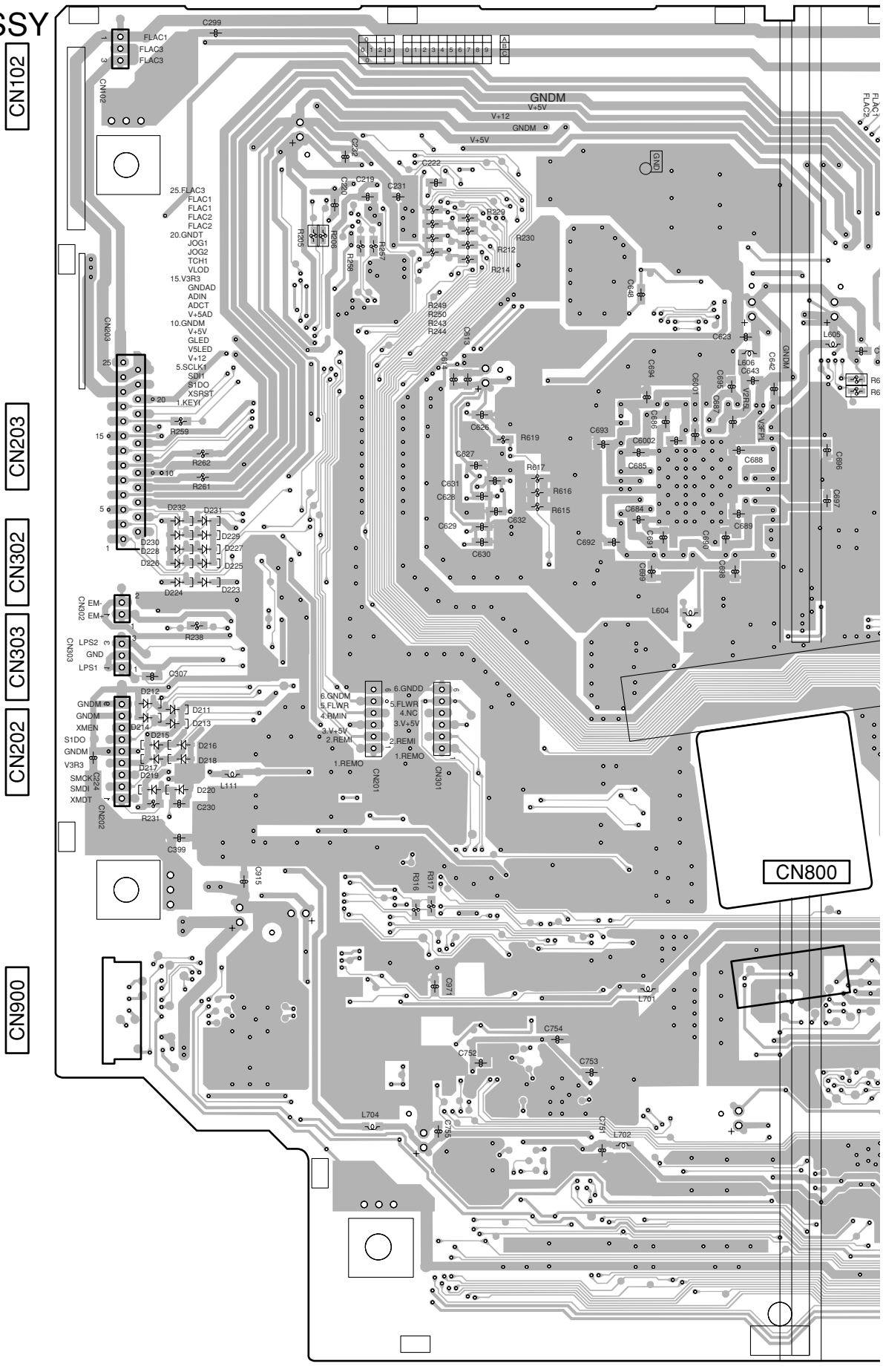
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E	Transistor
B C E	B C E	Transistor with resistor
D G S	D G S	Field effect transistor
		3-terminal regulator

SIDE A

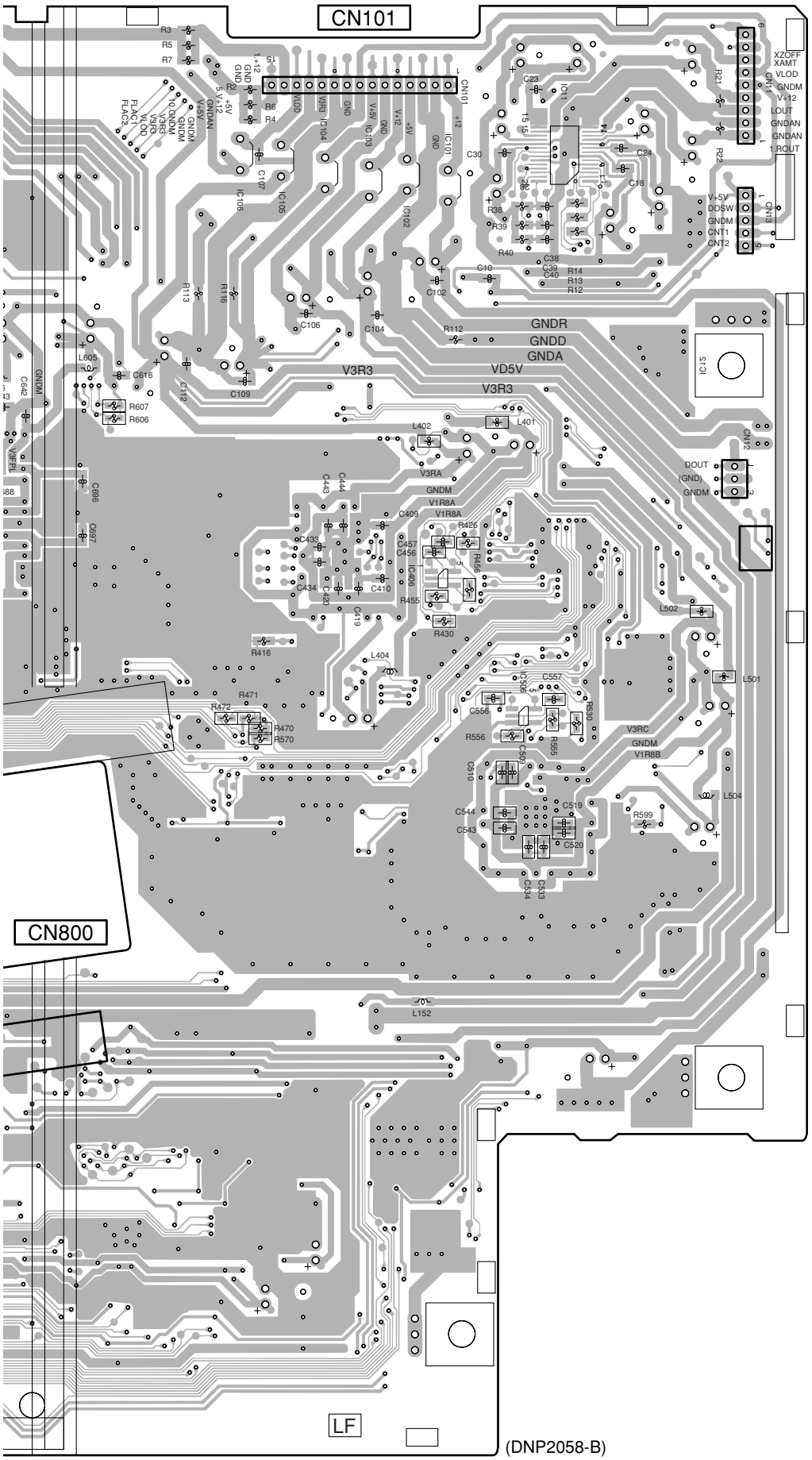

A MAIN ASSY
CN102
D CN1501
CN203
J CN1101
CN302
LOADING MOTOR
CN303
E CN1501
CN202
F CN99
CN900
B CN912
IC101 ICP-N20
IC102 ICP-N15
IC103 ICP-N15
IC104 ICP-N20
IC105 ICP-N25
IC106 ICP-N10
MFD.BY ROHM CO.LTD.
DE CHEZ ROHM CO.LTD.
IC601
IC607
IC608
IC610
IC612
IC606
IC700
IC701
IC710
IC711
IC900
IC901
IC100
IC202
IC203
IC204
IC205
IC206
M.CPU
S.CPU
X601
X602
X300
X701
X201
PICKUP ASSY
CN801
CN800
接触面上
CONTACT SIDE=UP
OPEN SIDE
CONTACT SIDE
BOTTOM
BOTTOM
CONTACT SIDE
GNDM
V+5V
GND
GNDD
VD5V
V12DR
VD2R5
GNDR
126.5
(DNP2058-B)

SIDE B

A MAIN ASSY



SIDE B



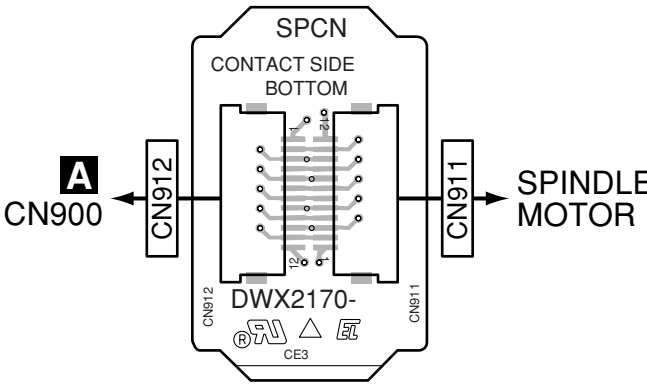
(DNP2058-B)

4.2 SPCN, STCN, FLRB, SLMB and MMCB ASSYS

SIDE A

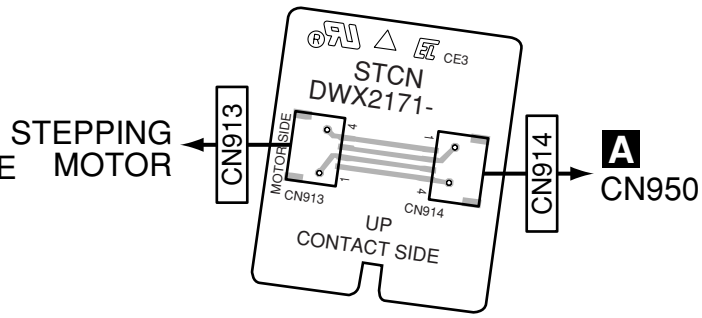
SIDE A

B SPCN ASSY



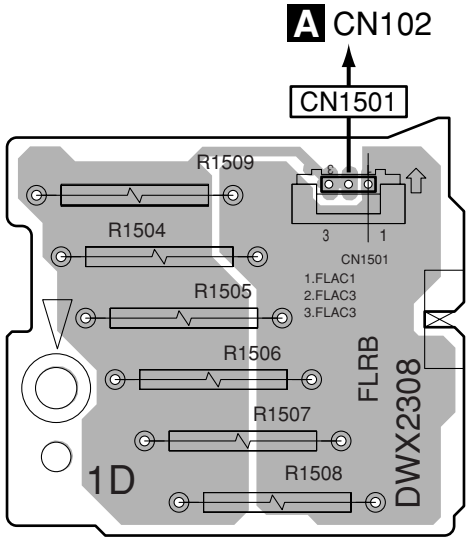
(DNP2058-B)

C STCN ASSY



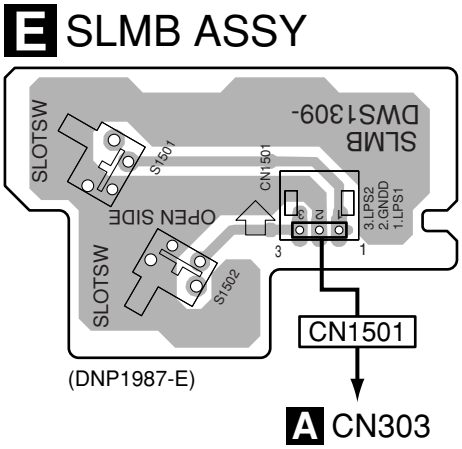
(DNP2058-B)

D FLRB ASSY



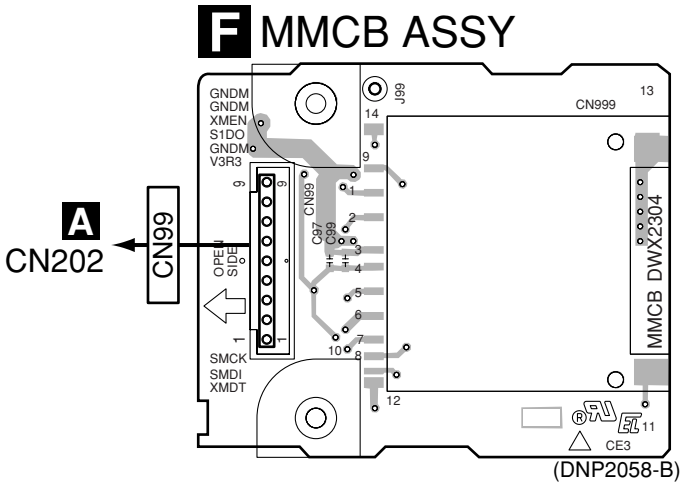
(DNP2059-B)

E SLMB ASSY



(DNP1987-E)

F MMCB ASSY

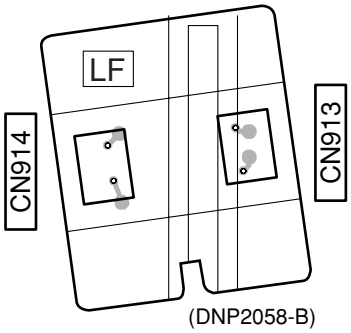


(DNP2058-B)

SIDE B

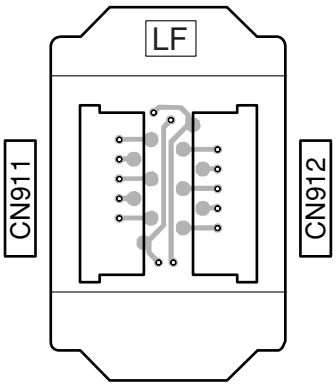
SIDE B

C STCN ASSY



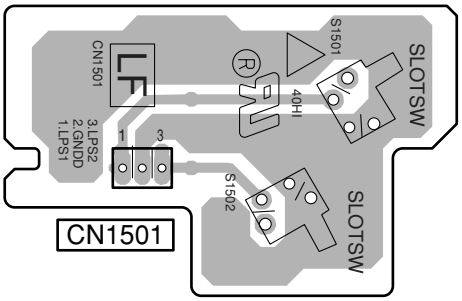
(DNP2058-B)

B SPCN ASSY



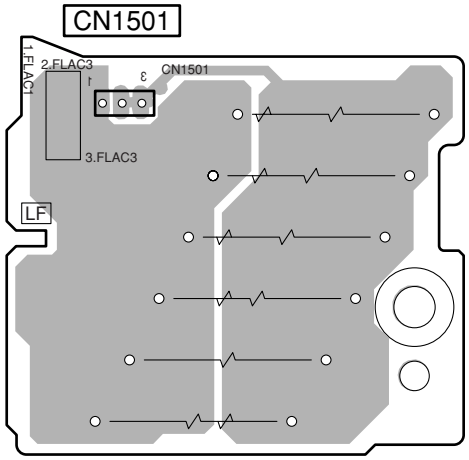
(DNP2058-B)

E SLMB ASSY



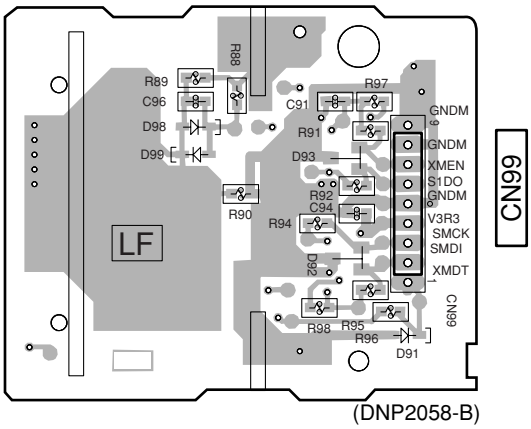
(DNP1987-E)

D FLRB ASSY



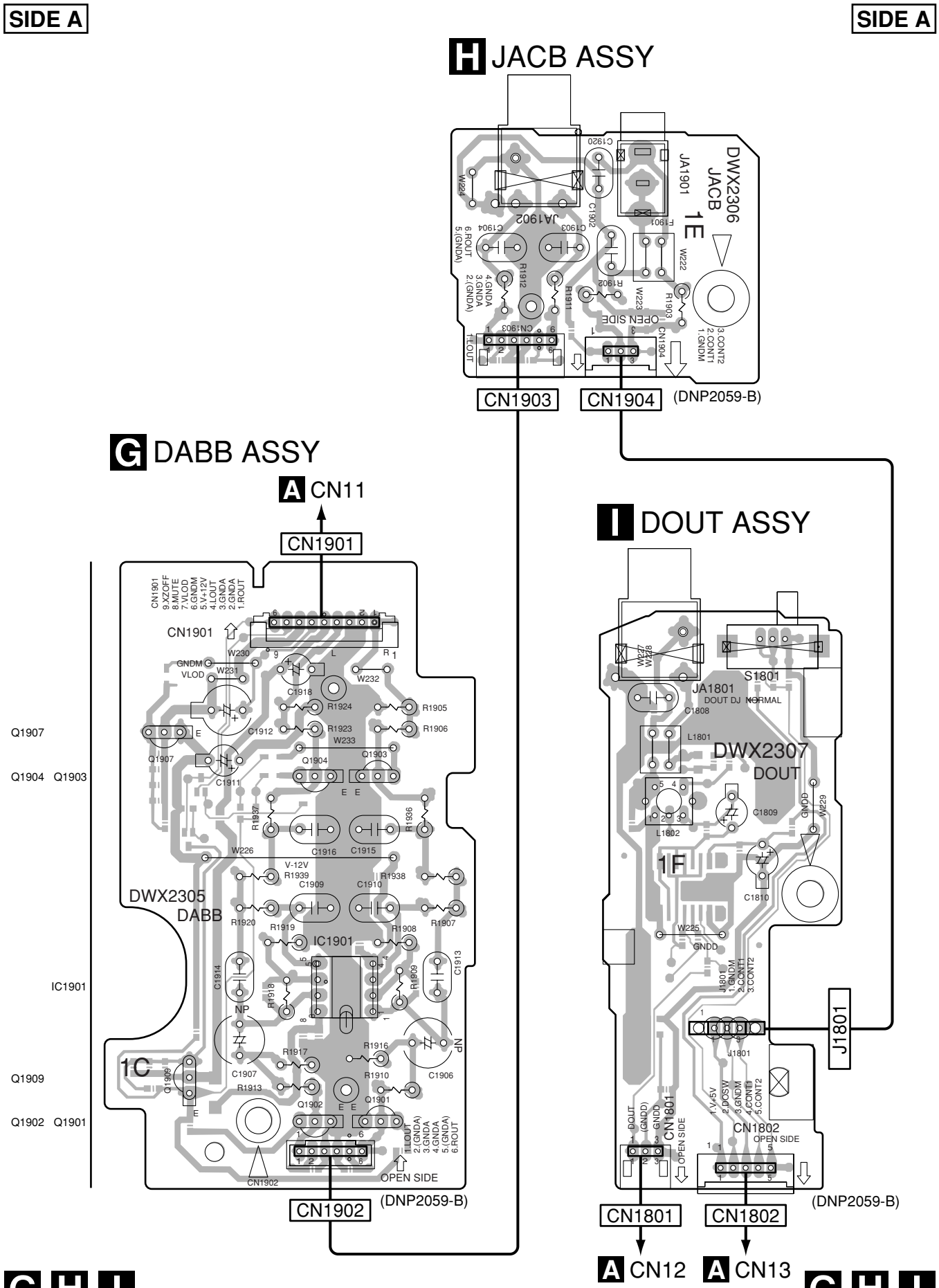
(DNP2059-B)

F MMCB ASSY



(DNP2058-B)

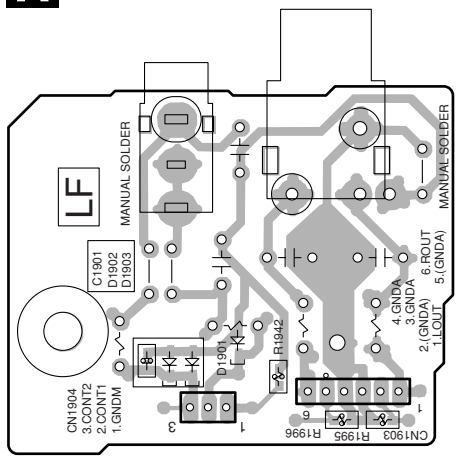
4.3 DABB, JACB and DOUT ASSYS



SIDE B

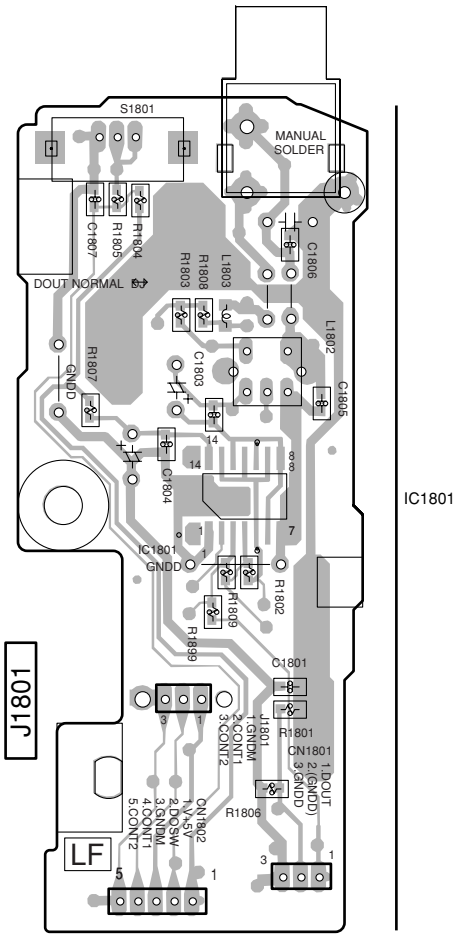
SIDE B

H JACB ASSY



(DNP2059-B) CN1904 CN1903

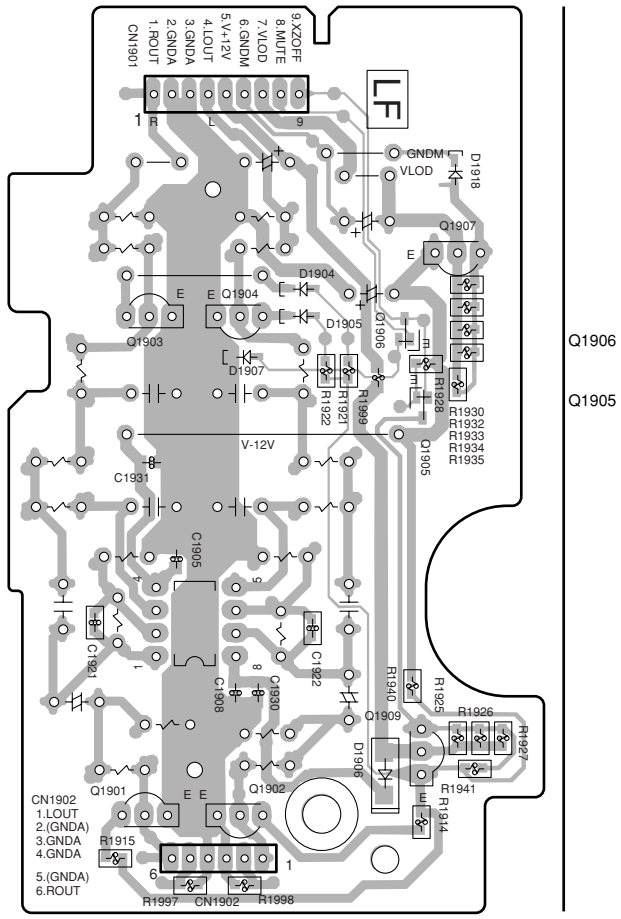
I DOUT ASSY



(DNP2059-B) CN1802 CN1801

G DABB ASSY

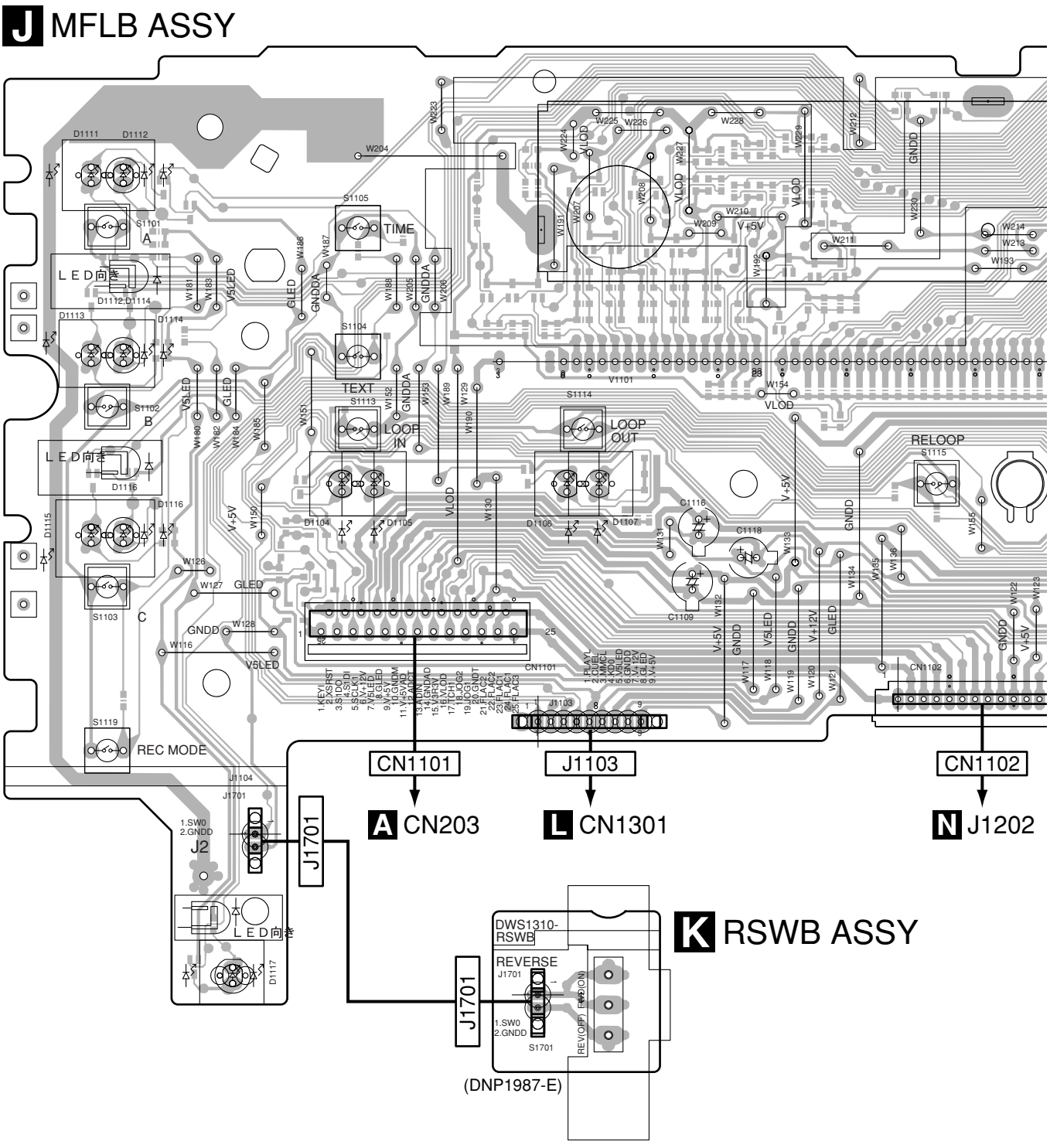
CN1901



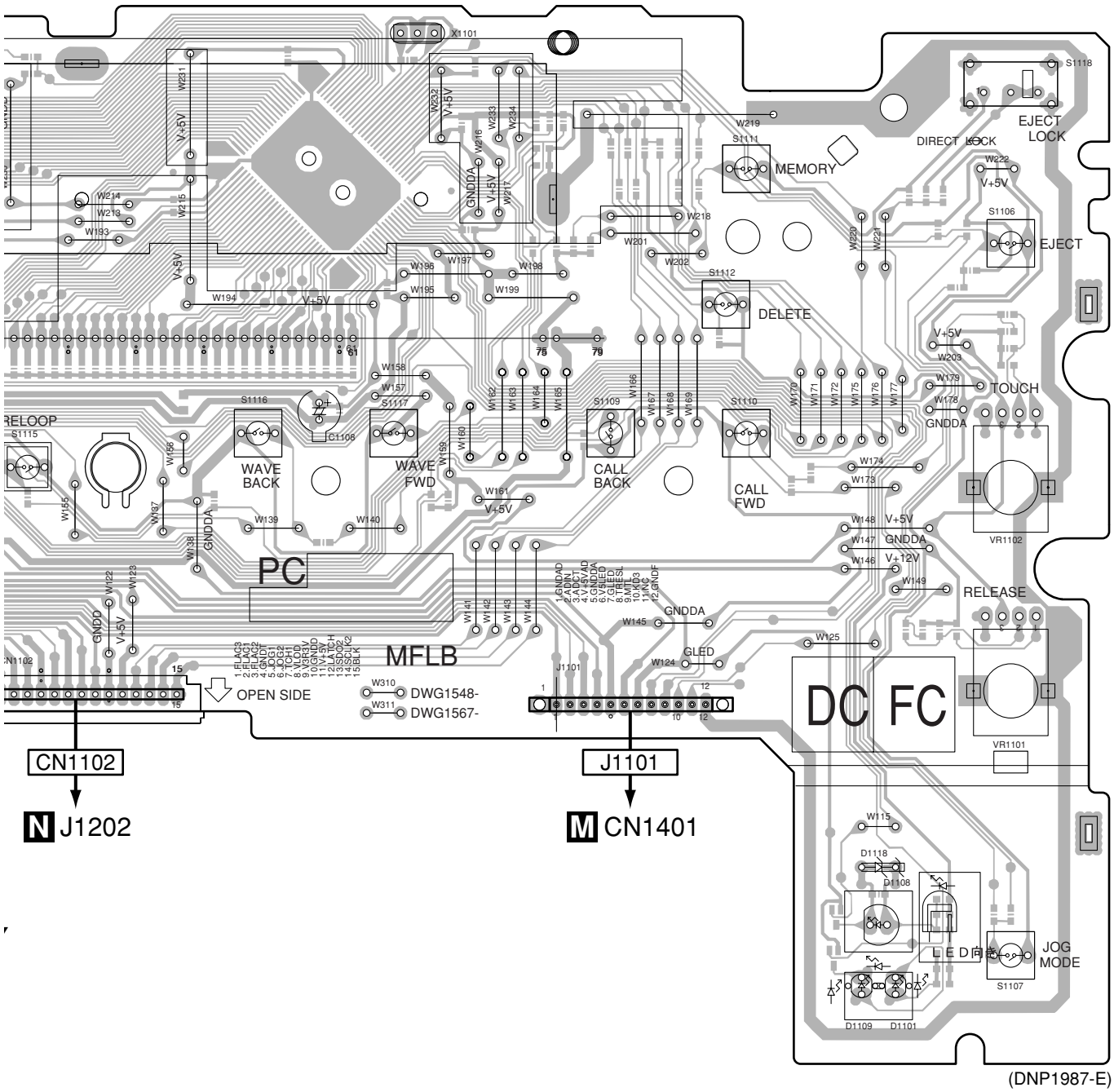
(DNP2059-B) CN1902

4.4 MFLB and RSWB ASSYS

SIDE A



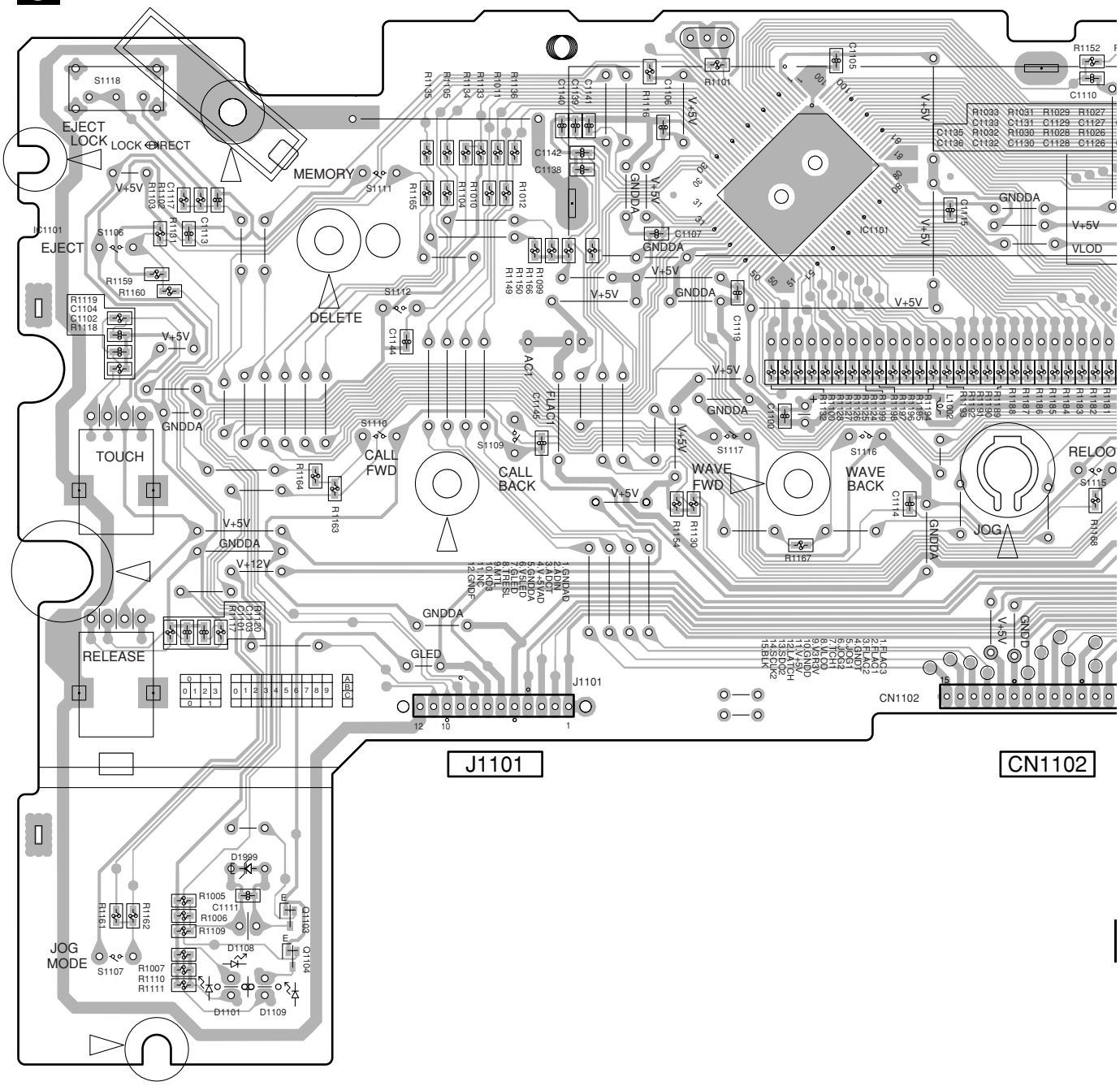
SIDE A



(DNP1987-E)

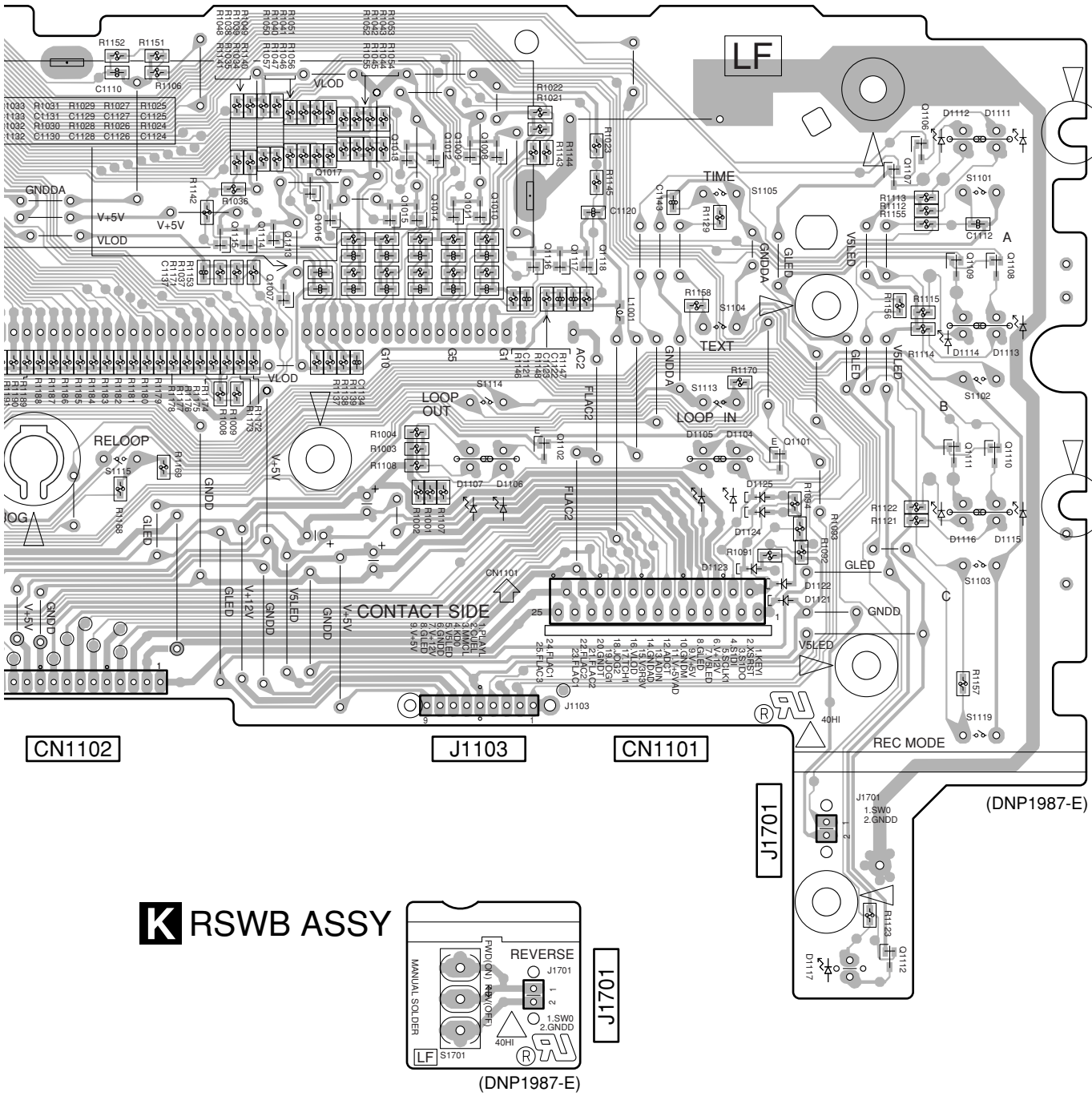
SIDE B

J MFLB ASSY



IC1101

SIDE B



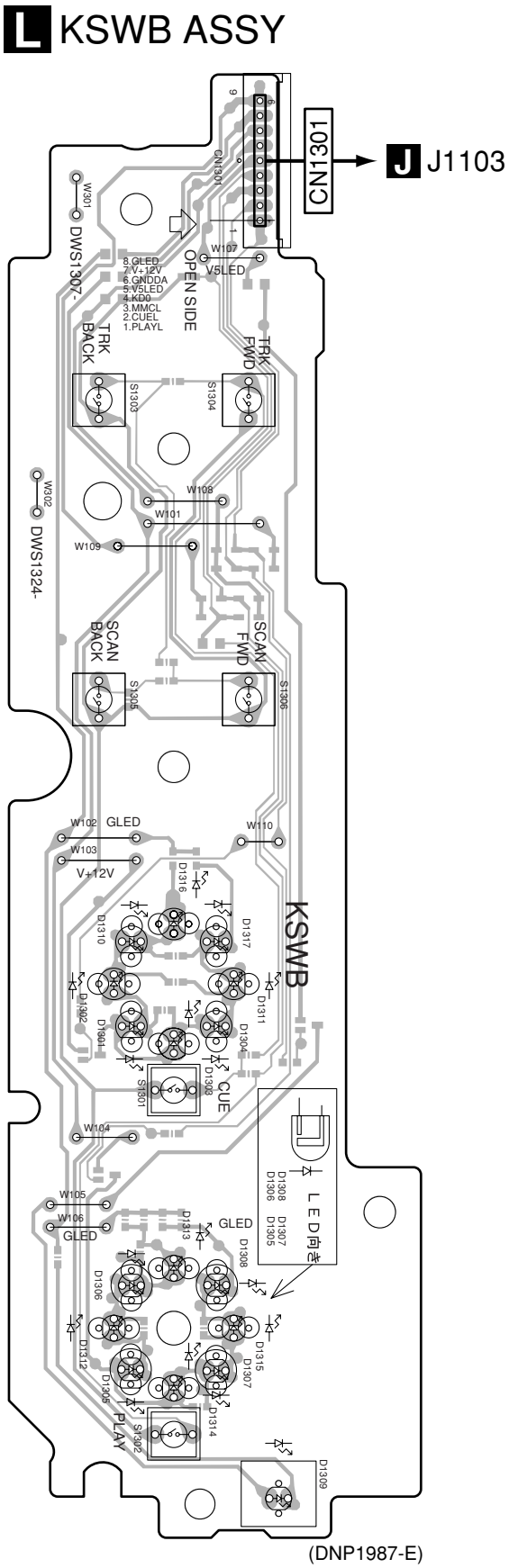
K RSWB ASSY

Q1017
Q1009 Q1008
Q1106
Q1113-Q1115 Q1016
Q1010-Q1015
Q1107
Q1007
Q1116-Q1118
Q1109 Q1108
Q1102
Q1101
Q1112
Q1111 Q1110

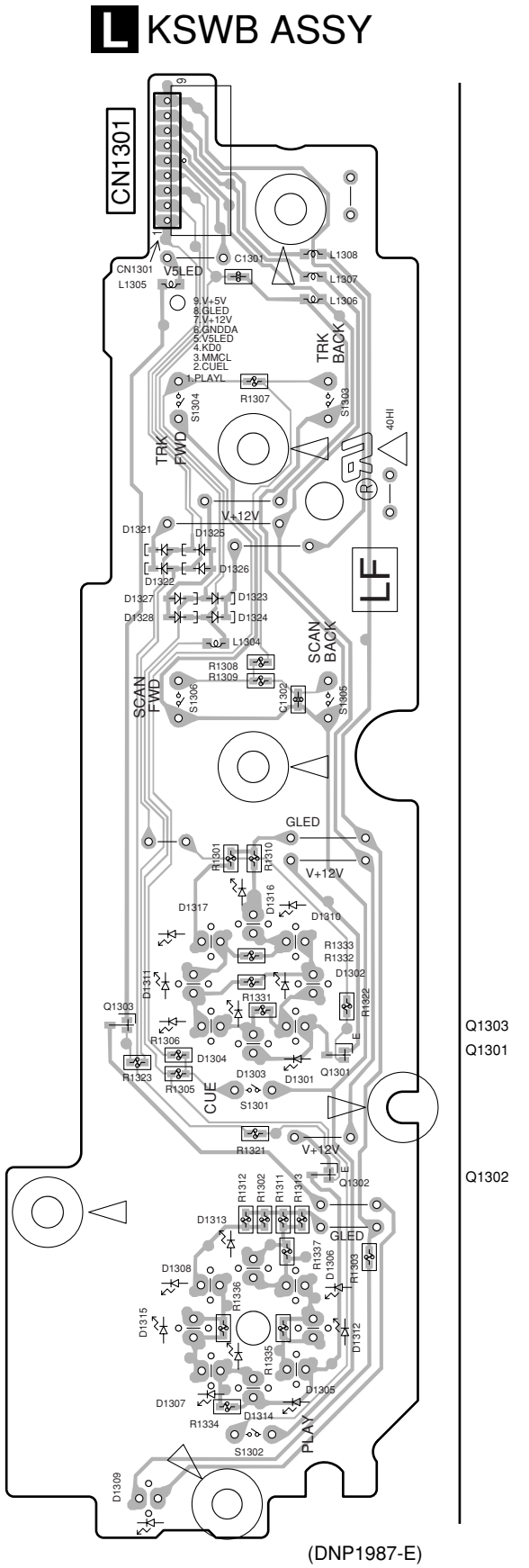
4.5 KSWB ASSY

SIDE A

SIDE B



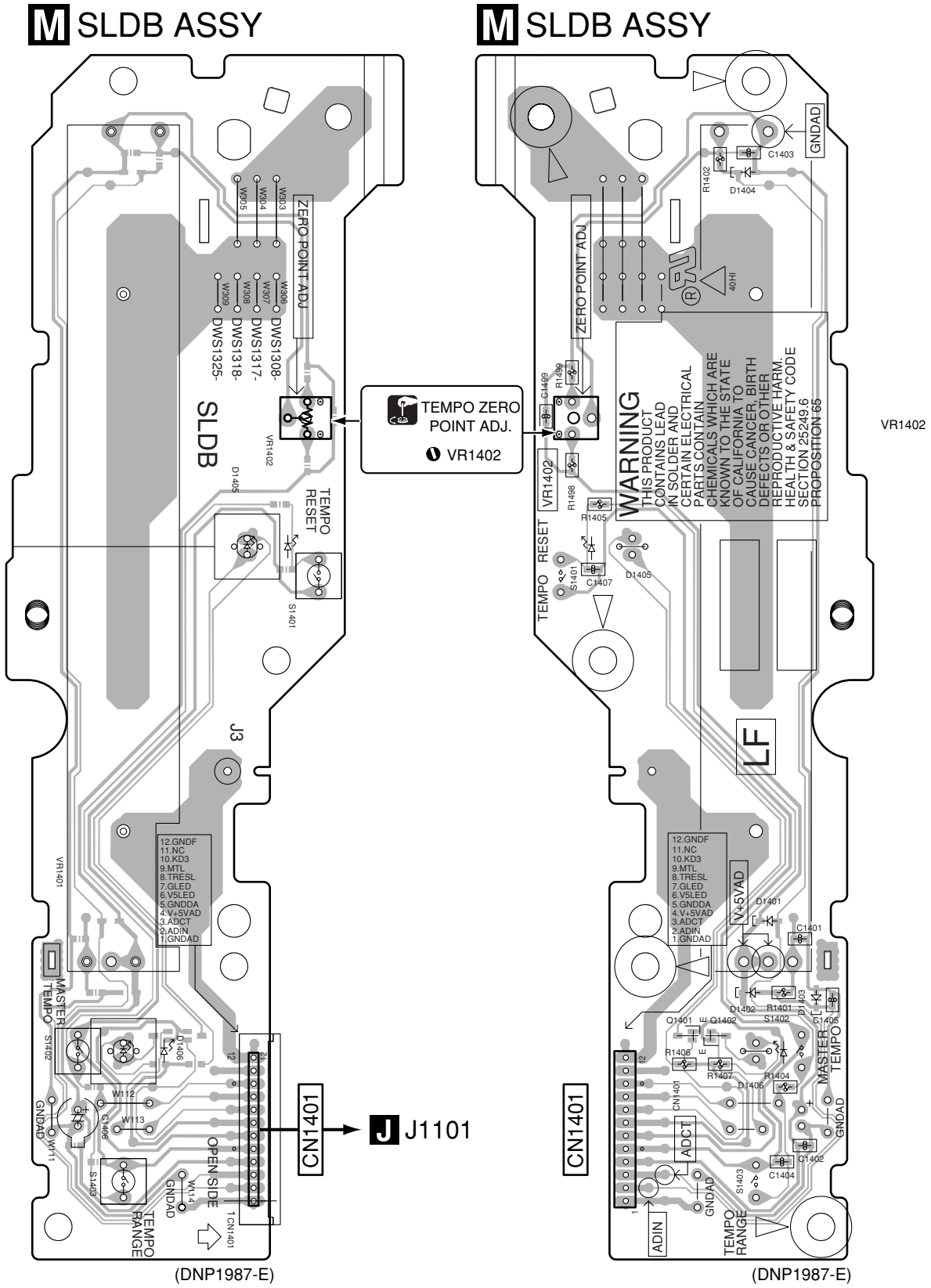
(DNP1987-E)



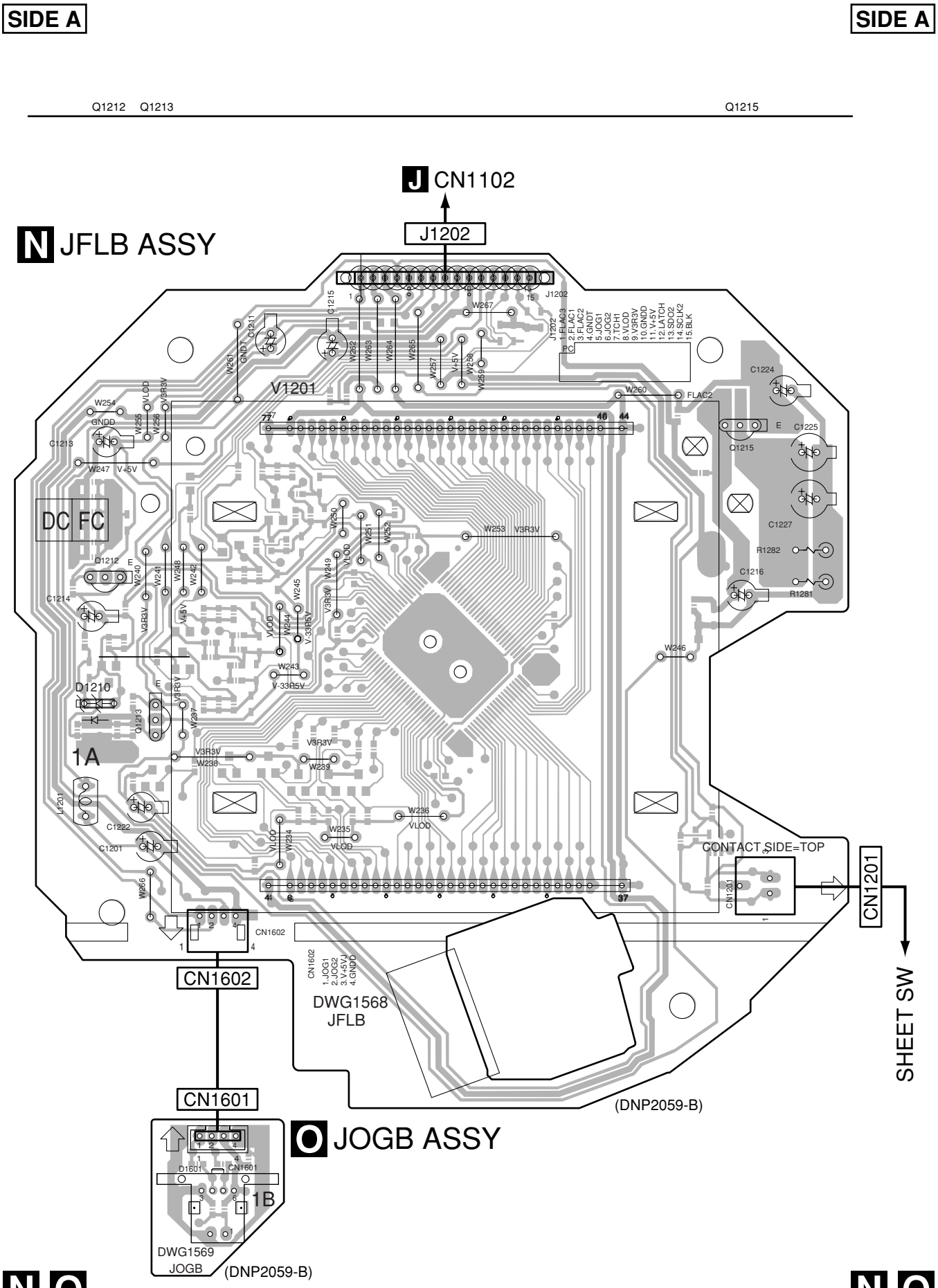
(DNP1987-E)

4.6 SLDB ASSY

SIDE A **SIDE B**

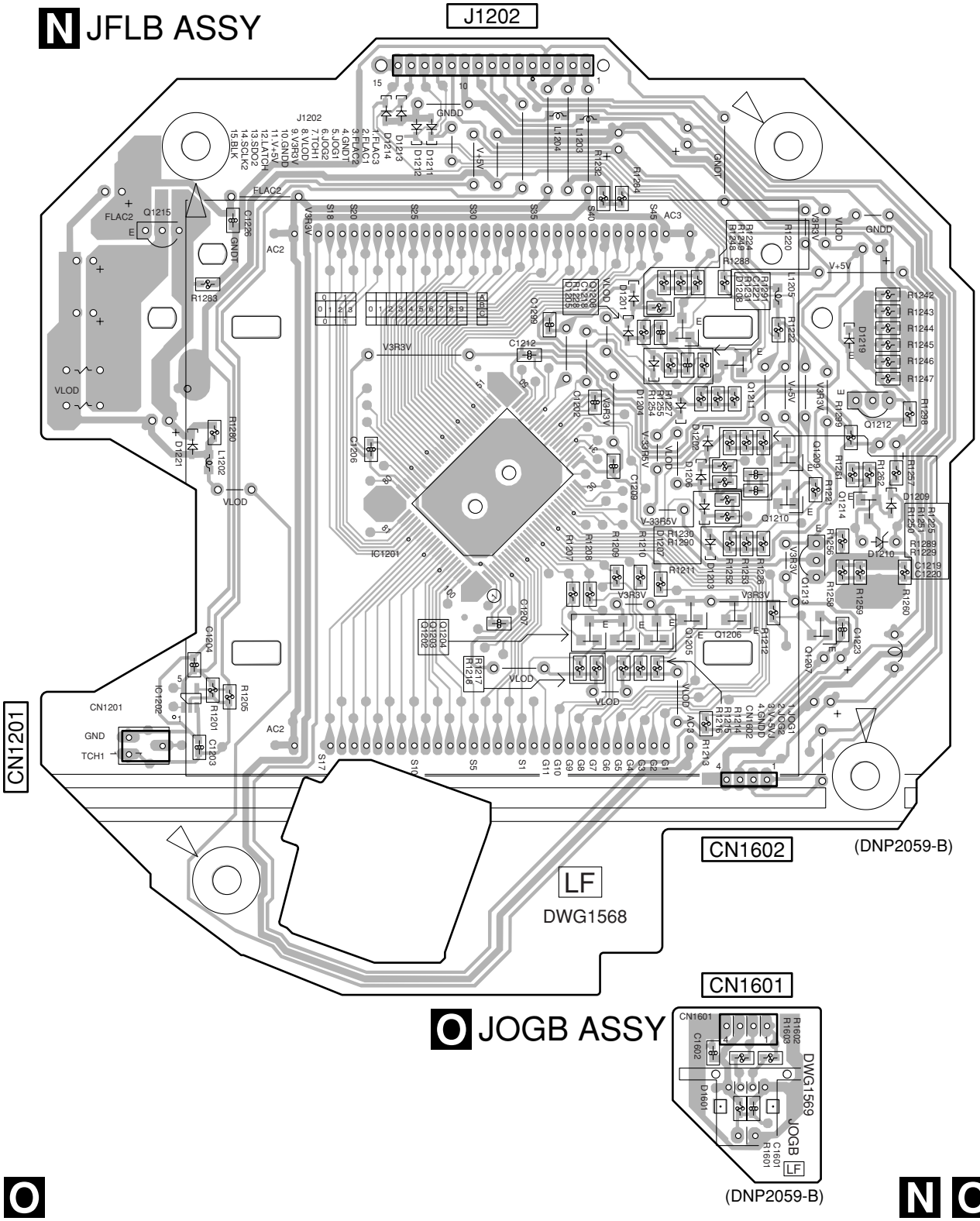


4.7 JFLB and JOGB ASSYS



SIDE B **SIDE B**

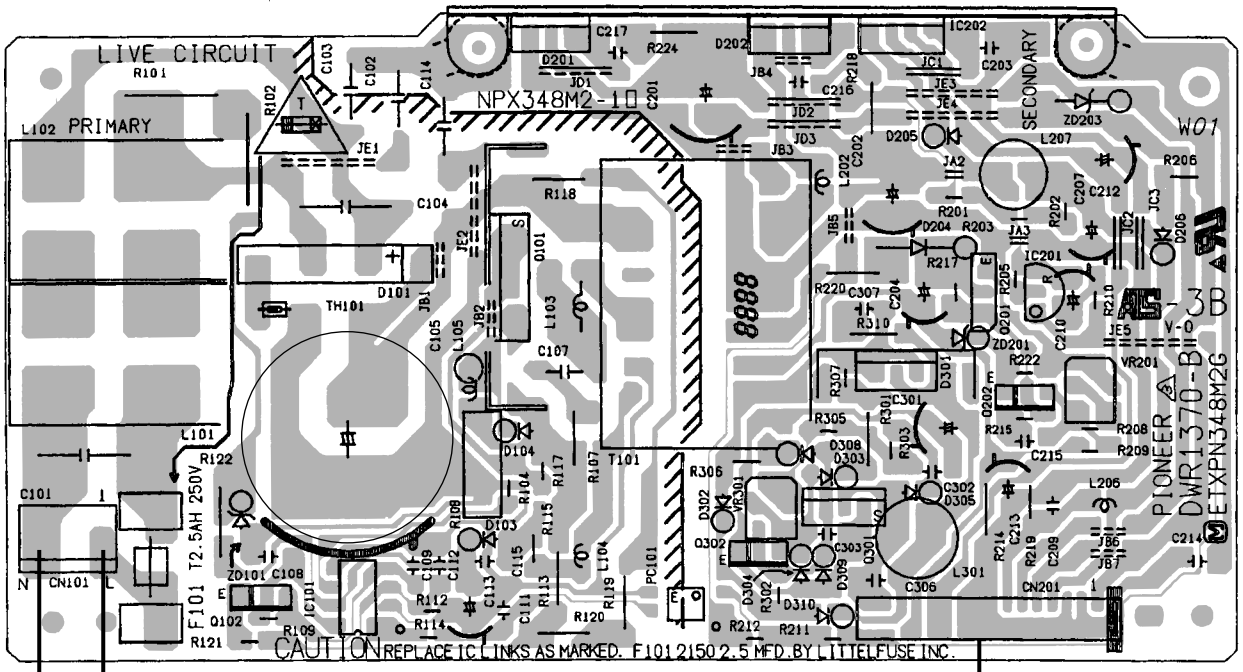
IC1202 IC1201 Q1208 Q1211 Q1209 Q1210 Q1214 Q1202-Q1204 Q1205 Q1206 Q1207



4.8 SW POWER SUPPLY and PSWB ASSYS

SIDE A **SIDE A**

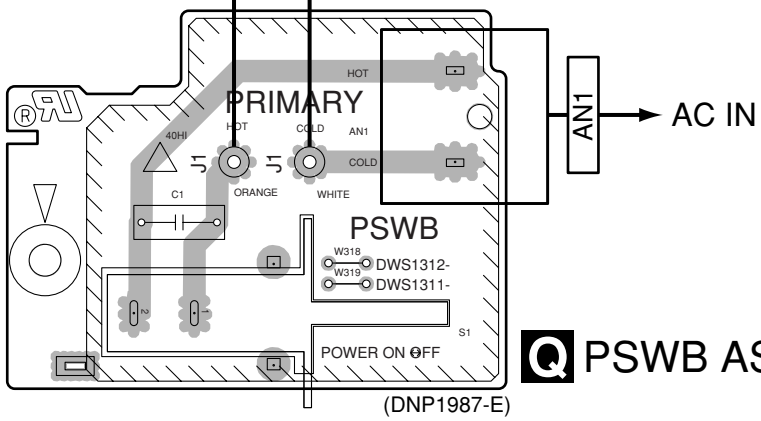
P SW POWER SUPPLY ASSY



A CN101

(Orange) (White)

J1 J1



AN1 → AC IN

Q PSWB ASSY

(DNP1987-E)

P Q **P Q**

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	→ *56 x 10¹* →	*561*	*RD1/4PU 5 6 1 J*
47k Ω	→ *47 x 10³* →	*473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*	*RN2H R 5 0 K*
1 Ω	→	*1R0*	*RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	→ *562 x 10¹* →	*5621*	*RN1/4PC 5 6 2 1 F*

LIST OF PCB ASSEMBLIES

Mark	Symbol and Description	CDJ-1000MK2 KUCXJ	CDJ-1000MK2 TLXJ	CDJ-1000MK2 WYXJ
NSP	1..MOTHER ASSY	DWM2162	DWM2162	DWM2162
	2..MAIN ASSY	DWX2303	DWX2303	DWX2303
	2..SPCN ASSY	DWX2170	DWX2170	DWX2170
	2..STCN ASSY	DWX2171	DWX2171	DWX2171
	2..MMCB ASSY	DWX2304	DWX2304	DWX2304
NSP	1..DISP ASSY	DWM2165	DWM2163	DWM2163
	2..SLMB ASSY	DWS1309	DWS1309	DWS1309
	2..MFLB ASSY	DWG1567	DWG1567	DWG1567
	2..RSWB ASSY	DWS1310	DWS1310	DWS1310
	2..KSWB ASSY	DWS1324	DWS1324	DWS1324
	2..SLDB ASSY	DWS1325	DWS1325	DWS1325
	2..PSWB ASSY	DWS1312	DWS1311	DWS1311
NSP	1..SUB ASSY	DWM2164	DWM2164	DWM2164
	2..FLRB ASSY	DWX2308	DWX2308	DWX2308
	2..DABB ASSY	DWX2305	DWX2305	DWX2305
	2..JACB ASSY	DWX2306	DWX2306	DWX2306
	2..DOUT ASSY	DWX2307	DWX2307	DWX2307
	2..JFLB ASSY	DWG1568	DWG1568	DWG1568
	2..JOGB ASSY	DWG1569	DWG1569	DWG1569
⚠	1..SW POWER SUPPLY ASSY	DWR1370	DWR1370	DWR1370

CONTRAST OF PCB ASSEMBLIES

Q PSWB ASSY

DWS1312 and DWS1311 are constructed the same except for the following:

Mark	Symbol and Description	DWS1312	DWS1311
	AN1 (AC SOCKET)	AKP7032	Not used
	AN1 (1P AC INLET)	Not used	BKP1046

PARTS LIST OF CDJ-1000MK2/ KUCXJ

Mark	No.	Description	Part No.
A		**MAIN ASSY**	
		SEMICONDUCTORS	
	IC800		AN8702NFH
	IC850		BA10358F
	IC10		BA178M05FP
	IC202		BR24C64F
⚠	IC106 (0.4A)		ICP-N10
⚠	IC102,IC103 (0.6A)		ICP-N15
⚠	IC101,IC104 (0.8A)		ICP-N20
⚠	IC105		ICP-N25
	IC606		K4S641632F-TC75
	IC950		LA6562
	IC900		LB11975
	IC600		M51957BFP
	IC404		MM1561JF
	IC700		MN677061ZY
	IC201		PD3445A8
	IC300		PD3446A8
	IC11		PE8001A
	IC100,IC607		PQ025EZ01ZP
	IC150,IC206		PQ1R33
	IC203		TC74HC4053AFT

Mark No.	Description	Part No.
IC12		TC74HCT7007AF
IC205		TC74VHC08FT
IC405		TC74VHC541FT
IC407		TC7S04FU
IC204,IC710		TC7SET08FU
IC711		TC7SET32FU
IC610		TC7SH08FU
IC406,IC506		TC7SU04F
IC605		TC7WT241FU
IC13,IC402,IC608,IC612,IC701		TC7WU04FU
IC601		XC2S50-5PQ208C
IC401,IC501		XCA56367PV150
Q600		2SA1577
Q204		2SC4081
Q11,Q202		DTA124EUA
Q201,Q203,Q301,Q701,Q800		DTC124EUA
Q950		DTC124EUA
D11,D203-D232		1SS355

COILS AND FILTERS

L401,L402,L501,L502 CHIP FERRITE BEAD	ATL7002
L601,L602 CHIP FERRITE BEAD	ATL7002
L11,L13,L200 (CHIP COIL 4R7)	DTL1024
L404,L504	LCTAW1R0J2520
L10,L101,L111,L15,L152 CHIP BEAD	PTL1014
L201,L603-L606,L608 CHIP BEAD	PTL1014
L701-L706 CHIP BEAD	PTL1014

CAPACITORS

C417,C418,C517,C518,C638	CCSRCH100D50
C831	CCSRCH100D50
C221,C223,C236,C38-C40	CCSRCH101J50
C405,C411,C413,C415,C421	CCSRCH101J50
C423,C425,C427,C429,C435	CCSRCH101J50
C437,C439,C445,C458,C459	CCSRCH101J50
C469,C505,C511,C513,C515	CCSRCH101J50
C521,C523,C525,C527,C529	CCSRCH101J50
C535,C537,C539,C545,C569	CCSRCH101J50
C700	CCSRCH101J50
C635,C637	CCSRCH120J50
C633	CCSRCH121J50
C464,C634	CCSRCH150J50
C463	CCSRCH180J50
C803	CCSRCH181J50
C957	CCSRCH220J50
C407,C431,C441,C461,C507	CCSRCH221J50
C531,C541,C614	CCSRCH221J50
C959	CCSRCH270J50
C914	CCSRCH331J50
C807	CCSRCH390J50
C467,C468,C567,C568,C707	CCSRCH470J50
C713	CCSRCH470J50
C453	CCSRCH471J50
C723,C818,C819	CCSRCH561J50
C724	CCSRCH681J50
C103,C108,C110,C121,C155	CEHAR101M10
C17,C20,C201,C21,C211	CEHAR101M10
C22,C29,C401,C452,C499	CEHAR101M10
C501,C502,C599,C622	CEHAR101M10
C624,C625,C901,C951	CEHAR101M10
C101,C105,C25-C28,C828	CEHAR470M16
C900	CEHAR470M16
C237,C33,C704,C708,C712	CKSRYB102K50
C806,C811-C813	CKSRYB102K50
C10,C102,C104,C106,C109	CKSRYB103K50
C11,C112,C122,C123,C154	CKSRYB103K50
C157,C158,C16,C200	CKSRYB103K50
C202,C203,C205-C210,C217	CKSRYB103K50
C225,C226,C230-C233	CKSRYB103K50
C31,C32,C331-C333,C400	CKSRYB103K50
C402,C403,C406,C408,C412	CKSRYB103K50
C414,C416,C422,C424,C426	CKSRYB103K50
C428,C430,C432,C436,C438	CKSRYB103K50
C440,C442,C446-C451	CKSRYB103K50
C456,C457,C462,C466,C500	CKSRYB103K50
C506,C508,C512,C514,C516	CKSRYB103K50
C522,C524,C526,C528,C530	CKSRYB103K50
C532,C536,C538,C540,C542	CKSRYB103K50
C546-C551,C556,C557	CKSRYB103K50
C6001,C6002,C613,C616,C618	CKSRYB103K50
C623,C626-C632,C636	CKSRYB103K50
C641-C644,C651-C683,C714	CKSRYB103K50
C726,C730,C733,C751-C755	CKSRYB103K50
C800,C857,C910,C964,C971	CKSRYB103K50
C159,C18,C204,C213,C215	CKSRYB104K16
C228,C23,C24,C30,C300	CKSRYB104K16
C306,C620,C621,C715,C716	CKSRYB104K16
C725,C902,C904,C905	CKSRYB104K16
C229,C648	CKSRYB105K6R3
C218,C911	CKSRYB222K50
C833,C903	CKSRYB224K10
C820	CKSRYB273K16
C470,C570	CKSRYB472K50
C706,C802,C821	CKSRYB473K25
C107	CKSRYB473K50
C703	CKSRYB562K50
C834,C835	CKSRYB682K50
C301,C303,C305,C702,C705	CKSRYF104Z25
C709-C711,C717-C722,C732	CKSRYF104Z25
C801,C804,C805,C808-C810	CKSRYF104Z25
C815,C822,C825,C826,C830	CKSRYF104Z25
C832,C950,C952-C956	CKSRYF104Z25
C455,C940	CKSRYF105Z10
C454 (2.2 microF/10V)	VCG1031

RESISTORS

R825 (47 ohm)	DCN1133
R900,R901 (4.7 ohm)	DCN1141
R323,R324,R419,R654-R657	RAB4C101J
R681,R682	RAB4C101J
R828	RAB4C123J
R453	RAB4C220J
R800,R801	RAB4C273J
R834	RAB4C303J
R401,R420,R421,R501	RAB4C473J
R829	RAB4C822J
R610	RS1/16S1501D
R806	RS1/16S2202F

Mark No.	Description	Part No.
	R609	RS1/16S3901D
	Other Resistors	RS1/16S###J
	OTHERS	
X401	CRYSTAL RESONATOR (20.000MHz)	ASS7023
X701	CHIP CERALOCK (33.86MHz)	DSS1126
X201,X300	CHIP CERALOCK (20MHz)	DSS1127
X601	CRYSTAL RESONATOR (33.8MHz)	RSS1055
X602	CRYSTAL RESONATOR (27MHz)	VSS1086
CN13	5P JUMPER CONNECTOR	52147-0510
CN11	9P JUMPER CONNECTOR	52147-0910
CN101	15P JUMPER CONNECTOR	52147-1510
CN102	3P JUMPER CONNECTOR	52151-0310
CN201,CN301	KR CONNECTOR	B6B-PH-K-S
CN900	12P FFC CONNECTOR	DKN1205
CN950	4P FFC CONNECTOR	DKN1223
CN203	25P FFC CONNECTOR	HLEM25R-1
CN302	KR CONNECTOR	S2B-PH-K-S
CN12,CN303	KR CONNECTOR	S3B-PH-K-S
CN202	KR CONNECTOR	S9B-PH-K-S

B SPCN ASSY

OTHERS

CN911,CN912	12P FFC CONNECTOR	DKN1205

C STCN ASSY

OTHERS

CN913,CN914	4P FFC CONNECTOR	DKN1223

D FLRB ASSY

RESISTORS

R1504,R1507-R1509		RS3LMF330J
R1505,R1506		RS3LMF360J

OTHERS

CN1501	3P JUMPER CONNECTOR	52147-0310

E SLMB ASSY

SWITCHES AND RELAYS

S1501,S1502		DSG1017

OTHERS

CN1501	KR CONNECTOR	S3B-PH-K-M

F MMCB ASSY

SEMICONDUCTORS

D92,D93		NNCD6.2MF
D91		UDZS6.2B

Mark No.	Description	Part No.
	CAPACITORS	
C91		CCSRCH221J50
C99		CKSRYB103K50
C97		CKSRYB104K16
C94		CKSRYB105K6R3
	RESISTORS	
	All Resistors	RS1/16S###J
	OTHERS	
CN99	KR CONNECTOR	B9B-PH-K-S
CN999	SD CONNECTOR	DKN1231

G DABB ASSY

SEMICONDUCTORS

IC1901		NJM4580D
Q1907		2SA1145
Q1901-Q1904		2SD2144S
Q1906		DTA124EUA
⚠ Q1905		DTC124EUA
D1906		1SR154-400
D1904,D1905,D1907		1SS355
D1918		UDZS13B

CAPACITORS

C1906,C1907		CEANP101M16
C1912		CEAT101M50
C1905,C1908		CKSRYB104K16
C1915,C1916		CQMBA102J50
C1909,C1910,C1913,C1914		CQMBA152J50

RESISTORS

R1908,R1919		RD1/2VM103J
R1909,R1918		RD1/2VM113J
R1907,R1920,R1938,R1939		RD1/2VM182J
R1916,R1917		RD1/2VM273J
R1906,R1910,R1913,R1923		RD1/2VM471J
R1936,R1937		RD1/2VM471J
R1999		RS1/10S0R0J
Other Resistors		RS1/16S###J

OTHERS

CN1901	9P JUMPER CONNECTOR	52147-0910
CN1902	KR CONNECTOR	B6B-PH-K-S

H JACB ASSY

SEMICONDUCTORS

D1902		1SS355
D1901,D1903		UDZS10B

CAPACITORS

C1902,C1920		CFTLA103J50
C1901		CKSRYB104K16
C1903,C1904		CQMBA102J50

RESISTORS

R1903		RD1/2VM271J
R1902,R1911,R1912		RD1/2VM471J

OTHERS

CN1904	3P JUMPER CONNECTOR	52151-0310
JA1902	2P PIN JACK	BKB1017
JA1901	REMOTE CONTROL JACK	RKN1004
CN1903	KR CONNECTOR	S6B-PH-K-S

Mark	No.	Description	Part No.

I DOUT ASSY

SEMICONDUCTORS

	IC1801	TC74HCU04AF

COILS AND FILTERS

	L1802	PULS TRANS. PTL1003
	L1803	CHIP BEAD PTL1014
⚠	L1801	COMMON CHOKE COIL PTL1017

SWITCHES AND RELAYS

	S1801	DSH1025

CAPACITORS

	C1810	CEAT101M6R3
	C1809	CEAT470M10
	C1808	CFTLA104J50
	C1803,C1804,C1806,C1807	CKSRYB104K16

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

0	3P CABLE HOLDER	51048-0300
	J1801 JUMPER WIRE 3P	D20PYY0305E
	JA1801 1P JACK (ORANGE)	PKB1028
	CN1801 KR CONNECTOR	S3B-PH-K-M

J MFLB ASSY

SEMICONDUCTORS

⚠	IC1101	PE5387A
	Q1007-Q1017,Q1113-Q1118	2SC4081
	Q1112	DTA124EUA
	Q1101-Q1104,Q1106-Q1111	DTC124EUA
	D1108	NSPB500-0008
	D1111,D1113,D1115,D1117	SLI-343URCW
	D1104-D1107	SLI-343YCW
	D1112,D1114,D1116	SLR-343EBT
	D1101,D1109	SLR-343MC
	D1121-D1125	UDZS6.8B

COILS AND FILTERS

	L1001,L1002	CHIP BEAD PTL1014

SWITCHES AND RELAYS

	S1104-S1107,S1109-S1112	VSG1024
	S1116,S1117,S1119	VSG1024
	S1101-S1103,S1113-S1115	DSG1063
	S1118	DSH1049

CAPACITORS

	C1143-C1145	CCSRCH101J50
	C1112-C1114,C1138-C1142	CCSRCH102J50
	C1121-C1137	CCSRCH471J50
	C1108,C1109,C1116,C1118	CEHAR470M16
	C1100-C1107,C1110,C1111,C1115	CKSRYB103K50
	C1117,C1119,C1120	CKSRYB103K50

RESISTORS

	VR1101,VR1102 (10kB)	DCS1045
	Other Resistors	RS1/16S###J

Mark	No.	Description	Part No.

OTHERS

	X1101 CERAMIC RESONATOR (4.19MHz)	DSS1130
0	2P CABLE HOLDER	51048-0200
0	9P CABLE HOLDER	51048-0900
0	12P CABLE HOLDER	51048-1200
	CN1101 25P FFC CONNECTOR	52492-2520
	J1103 JUMPER WIRE 9P	D20PYY0915E
	J1101 JUMPER WIRE 12P	D20PYY1215E
	V1101 FL TUBE	DEL1051
0	FL HOLDER	DNF1665

K RSWB ASSY

SWITCHES AND RELAYS

	S1701	DSK1021

OTHERS

0	2P CABLE HOLDER	51048-0200
	J1701 JUMPER WIRE 2P	D20PYY0210E

L KSWB ASSY

SEMICONDUCTORS

	Q1301-Q1303	DTA124EUA
	D1321-D1328	1SS355
	D1301,D1304,D1310,D1317	SLI-343YCW
	D1305-D1308	SLR-343EBT
	D1309	SLR-343VC

COILS AND FILTERS

	L1304-L1308	CHIP BEAD PTL1014

SWITCHES AND RELAYS

	S1303-S1306	VSG1024
	S1301,S1302	DSG1063

CAPACITORS

	C1302	CCSRCH101J50
	C1301	CCSRCH102J50

RESISTORS

	All Resistors	RS1/16S###J

OTHERS

	CN1301	9P JUMPER CONNECTOR 52151-0910

M SLDB ASSY

SEMICONDUCTORS

	Q1401,Q1402	DTA124EUA
	D1401-D1404	1SS355
	D1405	SLR-343MC
	D1406	SLR-343VC

SWITCHES AND RELAYS

	S1401-S1403	VSG1024

CAPACITORS

	C1407	CCSRCH101J50
	C1404	CCSRCH102J50
	C1406	CEHAT100M50
	C1401	CKSRYB103K50
	C1402,C1403	CKSRYB104K16

Mark No.	Description	Part No.
RESISTORS		
	VR1401	DCV1013
	VR1402 (1 kohm)	RCP1110
	Other Resistors	RS1/16S###J

N JFLB ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
⚠	IC1201	UPD16306B
⚠	Q1212	2SA933S
	Q1213,Q1215	2SB1237X
	Q1202-Q1207,Q1214	2SC2412K
	Q1208-Q1211	2SJ209
	D1201-D1208	1SS355
	D1210	MTZJ30D
⚠	D1219	UDZS4.3B
	D1211-D1214	UDZS6.8B
⚠	D1221	UDZS9.1B
COILS AND FILTERS		
	L1201	LRCA101J
	L1203-L1205 CHIP BEAD	PTL1014
CAPACITORS		
	C1211,C1213,C1214,C1216	CEHAT100M50
	C1201,C1215	CEHAT101M16
	C1203	CKSRYB102K50
	C1202,C1206,C1207,C1209,C1212	CKSRYB103K50
	C1218-C1221,C1223,C1226	CKSRYB103K50
RESISTORS		
	R1281,R1282	RD1/2VM101J
	Other Resistors	RS1/16S###J
OTHERS		
	CN1201 FLEXIBLE CONNECTOR	5597-03APB
	J1202 JUMPER WIRE 15P	D20PYY1505E
	V1201 FL TUBE	DEL1050
	0 FL HOLDER	DNK3959
	CN1602 KR CONNECTOR	S4B-PH-K-S

O JOGB ASSY

Mark No.	Description	Part No.
SEMICONDUCTORS		
	D1601	GP1A038RBK
CAPACITORS		
	C1601,C1602	CKSRYB103K50
RESISTORS		
	All Resistors	RS1/16S###J
OTHERS		
	CN1601 KR CONNECTOR	B4B-PH-K-S

P SW POWER SUPPLY ASSY

There is no service parts.

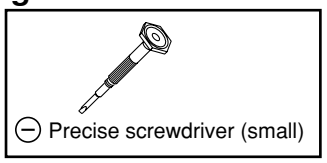
Q PSWB ASSY

Mark No.	Description	Part No.
SWITCHES AND RELAYS		
⚠	S1	RSA1001
OTHERS		
⚠	AN1 AC SOCKET	AKP7032
⚠	J1 CONNECTOR ASSY	DKP3560
	0 PCB BINDER	VEF1040

6. ADJUSTMENT

6.1 TEMPO ZERO POINT ADJUSTMENT

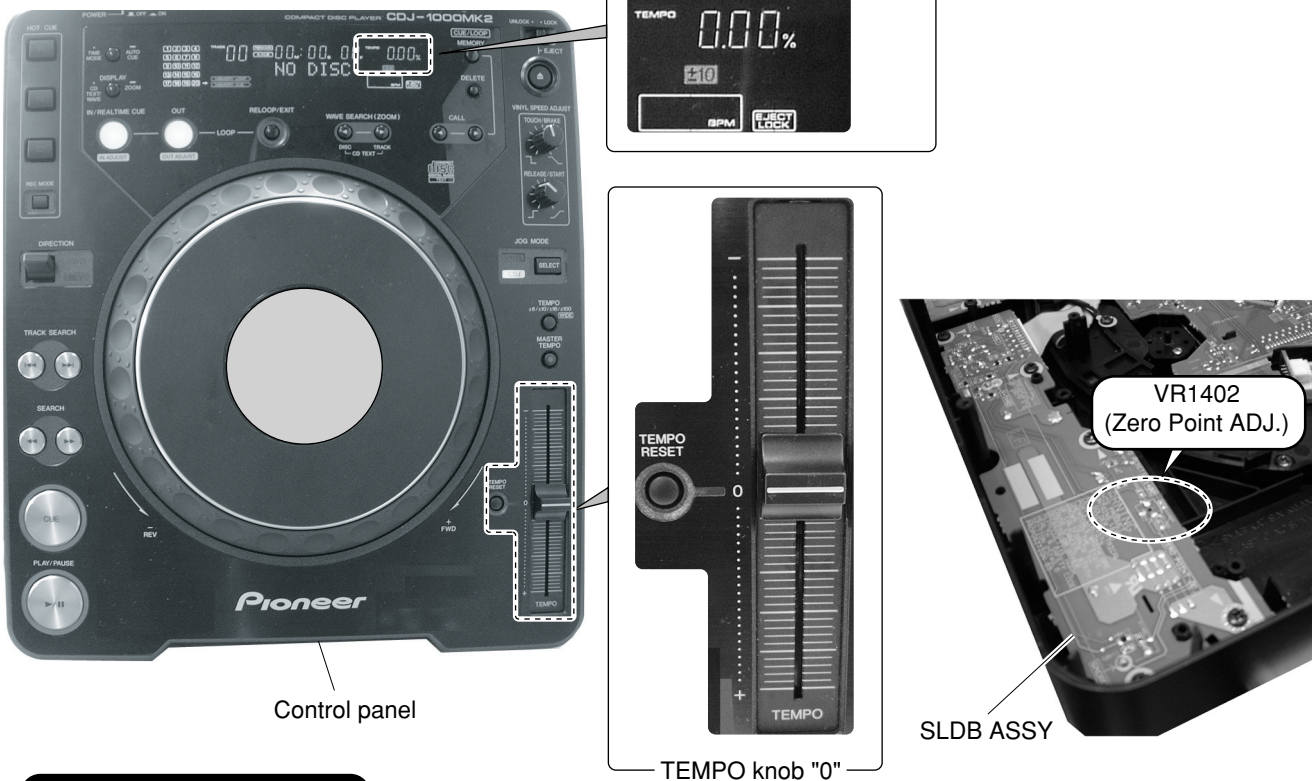
■ Jig



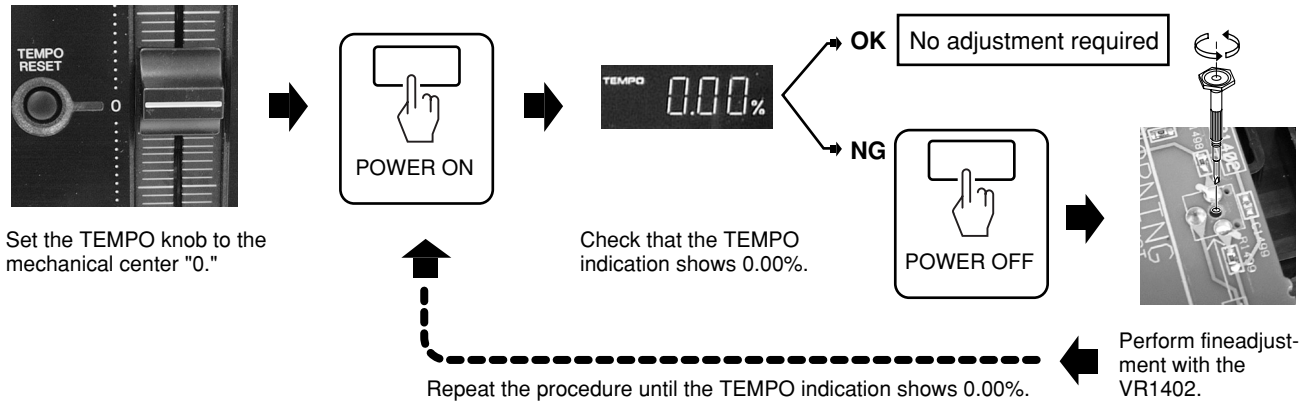
■ Necessary Adjustment Points

When	Adjustment points
Exchange the SLIDER VR	VR1402 (Zero Point ADJ.)

■ Adjustment and Check Points



Zero Point ADJ.



Note:
Because the value of the adjusted voltage is read only when the unit is turned on, if the TEMPO indication does not become 0% at the slider center after adjustment, turn off the power, and perform fineadjustment again. (Repeat the sequence of fineadjustment, power on, check, power off, and fine-adjustment.)

When adjusting the VR1402 (Zero point adj.), adjust it from the hole on the foil side with the SLDB Assy attached to the control panel.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 SERVICE MODE

■ Types of Service Modes

The unit is provided with three microcomputers: a microcomputer that controls key input and FL/LED display (display u com.) a mechanism-control microcomputer that drives the disc loading mechanism and servo mechanism, and a system control microcomputer that controls the whole system. The following test modes are provided for diagnosis of each microcomputer.

❶ Mode for checking key input in the display block and for display functions
In this mode, key input and the display function associated with such input can be checked.

❷ Mode for checking operation of the mechanical and servo blocks (using a connected PC)
In this mode, once you have connected a PC via the CN301 connector, which is directly connected to the mechanism-control microcomputer on the MAIN Assy through a special device, operation of the mechanical and servo blocks can be checked.

❸ Mode for checking audio output (using a connected PC)
In this mode, once you have connected a PC via the CN201 connector, which is directly connected to the system control microcomputer on the MAIN Assy through a special device, audio output can be checked.
Before entering this mode, it is necessary to disconnect the CN1101 connector on the MFLB Assy and remove the upper unit (jog and display block), because the communication line is shared between audio output and display functions.

❹ Mode for checking the load on the Jog dial
In this mode, the load (light/heavy) on the Jog dial while it is rotated is subjectively measured.

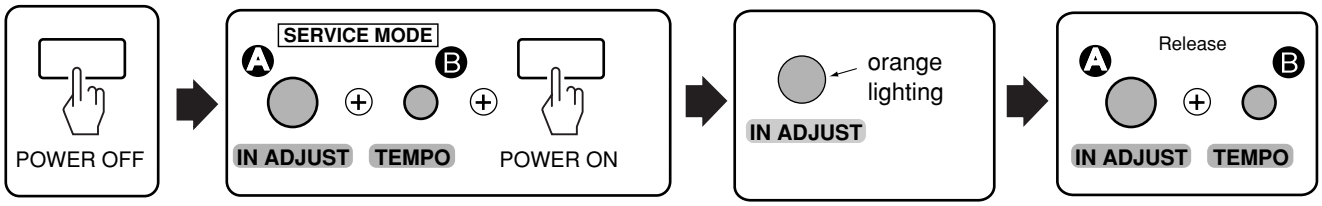
❺ Mode for checking the error log
In this mode, the latest 16 errors can be checked.

❻ Mode for checking the version of the software program
In this mode, the version of the software program for each microcomputer can be checked.

❶ Mode for checking key input in the display block and for display functions

• In this test mode, individual FL and LED displays can be checked, as shown below.
• The display lights while the key(s) is(are) held pressed.

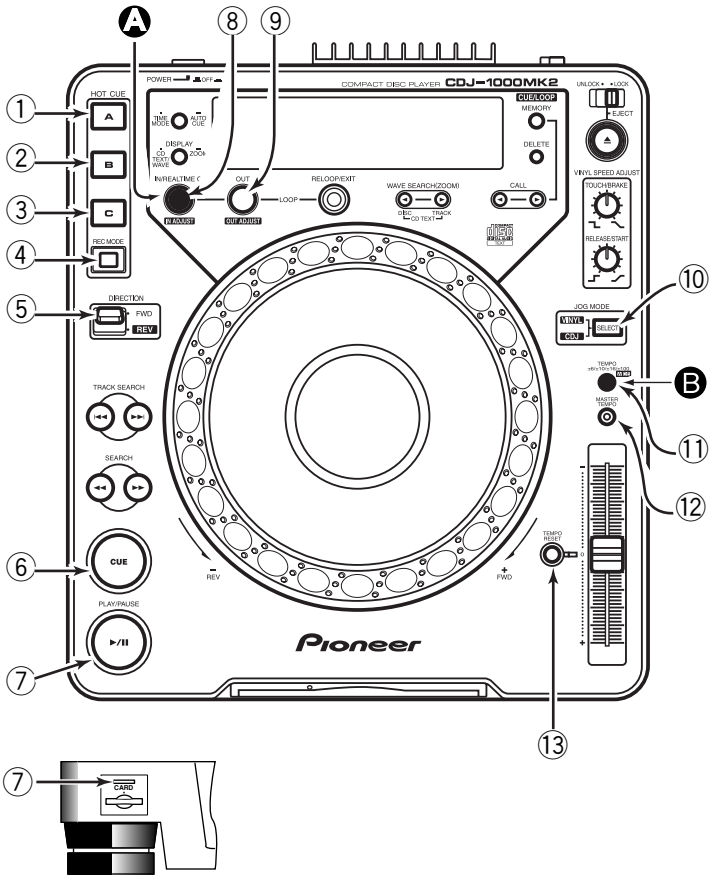
FL Check Mode : ON



FL Check Mode : CANCEL

LED Check

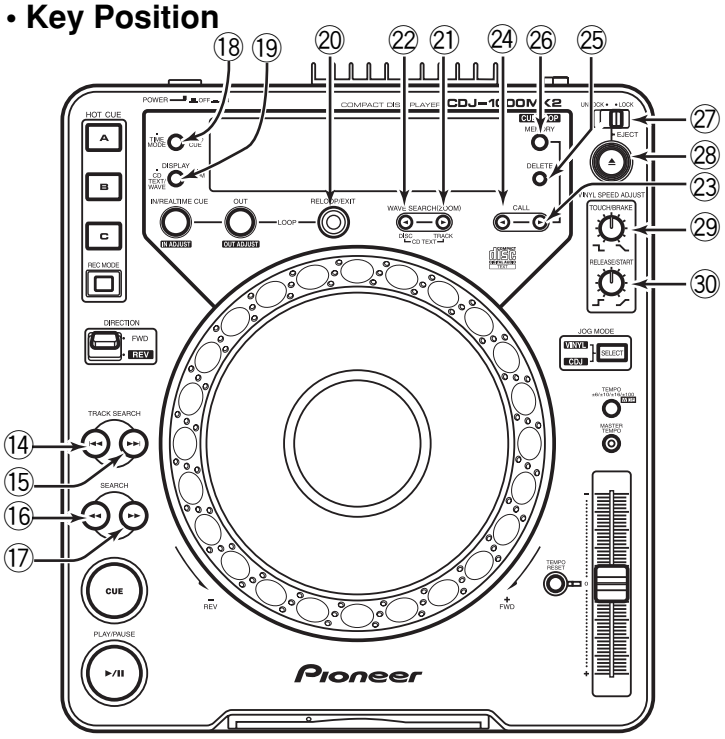
Key Name	LED lighting
① **HOT CUE -A**	A (red)
② **HOT CUE -B**	B (red)
③ **HOT CUE -C**	C (red)
④ **REC MODE**	A B C (green) (green) (green)
⑤ **DIRECTION (SW)**	REV (red)
⑥ **CUE**	CUE (orange)
⑦ **PLAY/PAUSE**	▶/II (green) (red) CARD
⑧ **IN ADJUST**	(orange) IN ADJUST
⑨ **OUT ADJUST**	(orange) OUT ADJUST
⑩ **JOG MODE**	CDJ (green)
⑪ **TEMPO**	VINYL (blue)
⑫ **MASTER TEMPO**	(red) MASTER TEMPO
⑬ **TEMPO RESET**	(green) TEMPO RESET

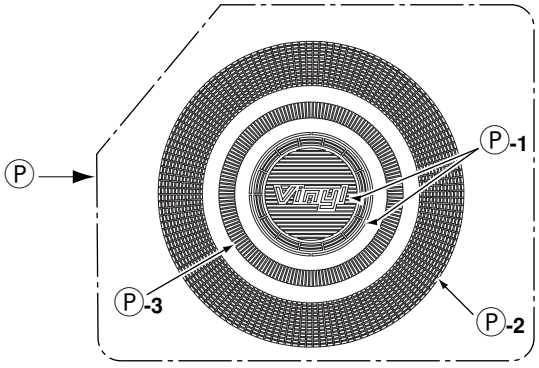


FL Check

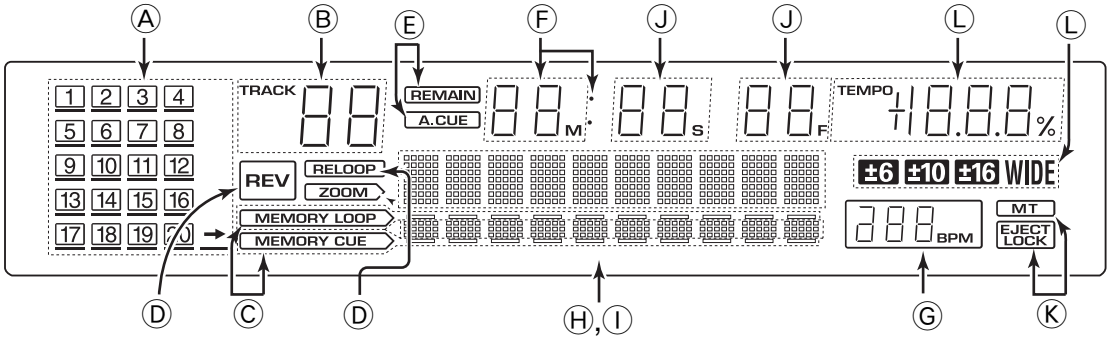
Key Name	FL lighting Position
⑭ |◄◄	Ⓐ
⑮ ►►|	Ⓑ
⑯ ◄◄	Ⓒ
⑰ ►►	Ⓓ
⑱ **TIME MODE/AUTO CUE**	Ⓔ
⑲ **DISPLAY**	Ⓕ
⑳ **RELOOP/ EXIT**	Ⓟ**- 1**
㉑ **WAVE - FWD**	Ⓟ**- 2**
㉒ **WAVE - REV**	Ⓟ**- 3**
㉓ **CALL - FWD**	Ⓖ
㉔ **CALL - REV**	Ⓗ**- 1**
㉕ **DELETE**	Ⓙ
㉖ **MEMORY**	All of FL, Ⓟ: Jog-FL and LED light up.
㉗ **EJECT LOCK (SW)**	Ⓚ
㉘ **EJECT**	Ⓛ
㉙ **MEMORY JOG ADJUST -TOUCH (VOL)**	Ⓗ**- 2**
㉚ **MEMORY JOG ADJUST -RELESE (VOL)**	Ⓘ

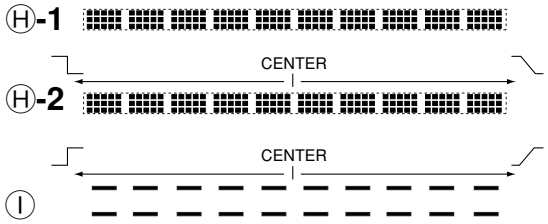
• **Key Position**





(FL DISPLAY)



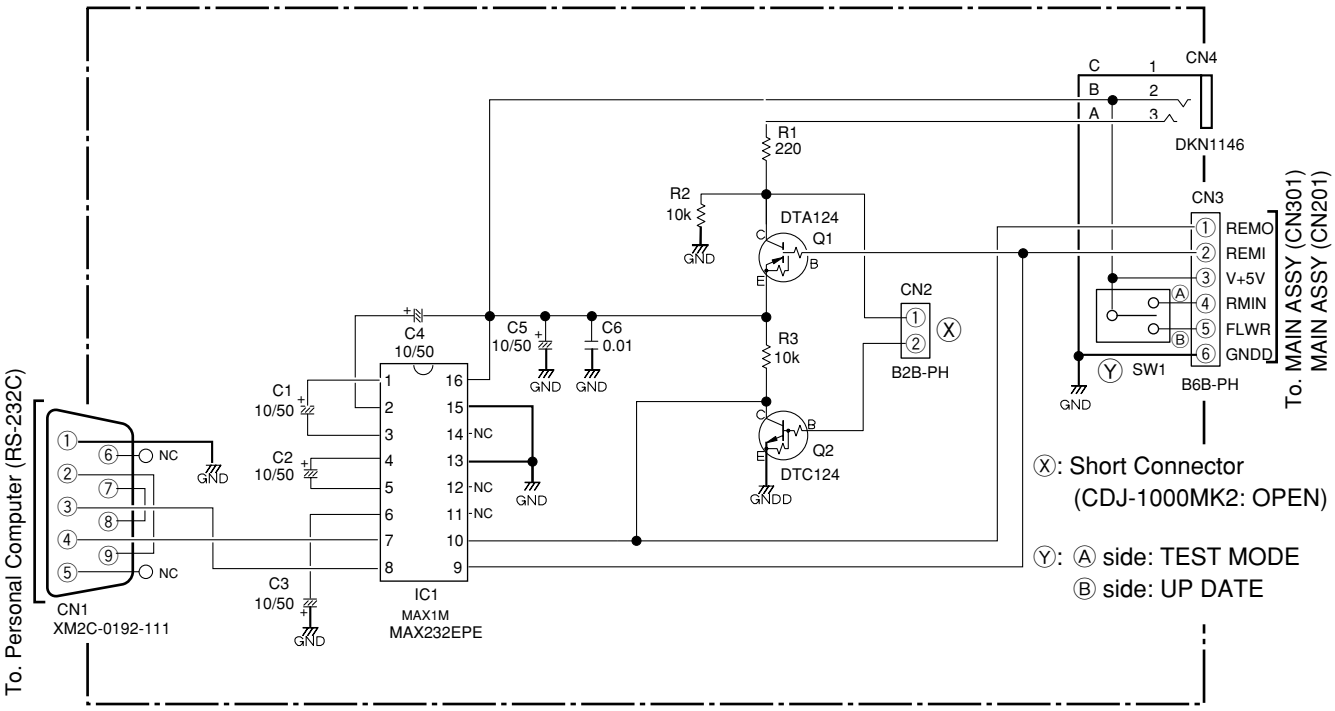


❷ Mode for checking operation of the mechanical and servo blocks (using a connected PC)

In this mode, once you have connected a PC via the CN301 connector, which is directly connected to the mechanism control microcomputer on the MAIN Assy through a RS-232C Jig, operation of the mechanical and servo blocks can be checked. The commands in this mode are mainly for testing the mechanical and servo systems, and not for testing the DJ functions (such as scan and tempo).

You can search your desired piece of music and play it. See " ❸ Mode for checking audio output (using a connected PC)".

■ RS-232C Jig Schematic Diagram



Parts List

SEMICONDUCTORS

IC1	: MAX232EPE
Q1	: DTA124
Q2	: DTC124

CAPACITORS

C1, C2, C3, C4, C5	: CEAT100M50
C6	: CKSQYF103Z50

RESISTORS

R1	: RD1/2VM221J
R2, R3	: RD1/2VM103J

OTHERS

CN1 (RS-232C CONNECTOR)	: XM2C-0192-111
CN2 (2P CONNECTOR)	: B2B-PH
CN3 (6P CONNECTOR)	: B6B-PH
CN4 (MIN JACK)	: DKN1146

Communication Soft

- Windows standard Hyper-Terminal
- Tera Term, CCT Win etc.

[Setup]

- Baud Rate : 4800bps
- Data Bits : 8bit
- Stop Bits : 1bit
- Parity : None

Communication Command

Command	Name	Description
TS	Test Mode Entry	To enter Test mode (It checks coming to a personal computer on the contrary with OFF.
BK	Address Block	To make the block-address assignment
TR	Address Track	To make the track-address assignment
IX	Address Index	To make the index-address assignment
TM	Address Time	To make the time-address assignment
SA	Start Up	To turn all servos on, and wait paused at the innermost track
PL	Play	To trace the signals on the disc (but not audio playback))
PA	Pause	To pause as soon as the command is received
SE	Search	To pause after searching for a given location
RJ	Reject	To turn all servos off and stop rotation of the disc
OP	Open	To eject the disc inside
EC	Error Count	To calculate the error rate
? A	Address Request	To return the address data (TNO:INDEX:AMIN:ASEC:AFRAME)
? B	Block Number Request	To return the block-number data (AMIN:ASEC:AFRAME)
? I	Index Number Request	To return the index-number data (TNO:INDEX)
? R	Track Number Request	To return the track-number data (TNO:INDEX)
? T	Time Code Request	To return the time-code data (AMIN:ASEC)
? Q	TOC Information Request	To return the TOC data (FTNO:ETNO:AMIN:ASEC:AFRAME)
? E	Error Rate Request	To return the error-rate data (effective EC command execution)
0TM	All Servo Off	To turn all servos off
1TM	LD On/Off	To turn on/off the laser-diode output (cyclic switching)
2TM	Focus Servo On/Off	To turn on/off the focus servo (cyclic switching)
3TM	Spindle On/Off	To turn on/off the spindle servo (cyclic switching)
4TM	Tracking Servo On/Off	To turn on/off the tracking servo (cyclic switching)
6TM	Address Read	To start a synchronized operation and start reading out the address data
9TM	Disc Search	To collect the disc data necessary for judging if a disc is inserted and for the focus servo
12TM	Focus Position Adjust	To perform the focus-position adjustment
13TM	Tracking Balance Adjust	To perform the tracking-balance adjustment
15TM	Focus Gain Adjust	To perform the focus-gain adjustment
16TM	Tracking Gain Adjust	To perform the tracking-gain adjustment
SF	Single Jump Fwd	To jump by one track toward the outermost track
SR	Single Jump Rev	To jump by one track toward the innermost track
MF	Multi Jump Fwd	To jump by the assigned number of tracks toward the outermost track
MR	Multi Jump Rev	To jump by the assigned number of tracks toward the innermost track
NF	Slider Move Fwd	To move the slider about 1 mm toward the outermost track
NR	Slider Move Rev	To move the slider about 1 mm toward the innermost track

Note:
To enter Test mode, execute the TS command before inserting a disc. Otherwise, audio playback of the first piece of music automatically starts responding to the command from the system-control microcomputer, and any command execution afterwards will not be accepted. In this case, "OFF" is displayed when a command is execution.

● Methods for assigning an address in a search operation

There are six methods for assigning an address in a search operation, as follows.

(Address Block) *
With the BK command, the address mode is set to block (absolute time = AMIN:ASEC:AFRAME).
Example: To search for 2 min 3 sec 4 frame: BK20304SE

(Address Track) *
With the TR command, the address mode is set to track.
Example: To search for the fifth piece of music (5th track): TR5SE

(Address Index) *
With the IX command, the address mode is set to index (TNO:INDEX).
Example: To search for Index 3 of the second piece of music: IX203SE

(Address Time) *
With the TM command, the address mode is set to time (absolute time = AMIN:ASEC)
Example: To search for 2 min 3 sec: TM203SE

* Once one of these address modes is assigned, it is maintained until another address mode is assigned.

(Error Count)
The error rate from the current location to the assigned address is calculated.
Example: To calculate the error rate from 20 min 0 sec 0 frame to 21 min 0 sec 0 frame and show the result
BK200000SE210000EC?E
Note: Figures in parentheses indicate the number of uncorrectable errors.

(TOC Information Request)
The TOC information for the disc is displayed.
Example: If the TOC information is 0116704307:
Number of the starting track = 01, number of the ending track = 16, recorded time = 70:43:07

● To manually start a servo

You can control the servo operations manually. Care must be taken during a manual operation in Test mode, because an inappropriate operation may damage the player.
For manual starting, the commands must be executed in the following order:

1TM : For turning on the laser diode
9TM : For judging if a disc is inside
3TM : For turning on the spindle
9TM : For disc search
2TM : For turning on the focus servo
13TM : For the tracking balance adjustment
4TM : For turning on the tracking servo
12TM : For the focus-position adjustment
15TM : For the focus-gain adjustment
16TM : For the tracking-gain adjustment
6TM : To start reading the address

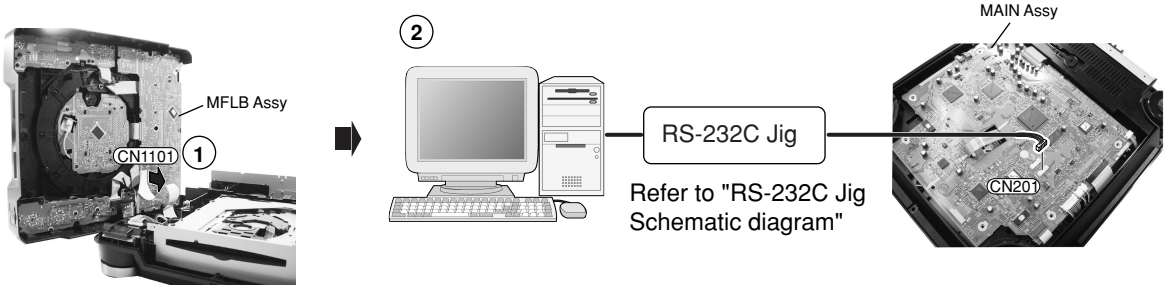
(Single Jump Fwd/Rev)
To jump by one track (physical track, not one piece of music) toward the outermost/innermost track of the disc

(Multi Jump Fwd/Rev)
To jump by a given number of tracks (physical track, not pieces of music) toward the outermost/innermost track of the disc
Example: To jump by 100 tracks from the current location toward the outermost track: 100MF

(Slider Move Fwd/Rev)
To move the slider by about 1 mm toward the outermost/innermost track of the disc. You can move the slider to your desired location by repeatedly executing this command.

❸ Mode for checking audio output (using a connected PC)

In this mode, once you have connected a PC via the CN201 connector, which is directly connected to the system control microcomputer on the MAIN Assy through a RS-232C Jig, the audio outputs can be checked.
Before entering this mode, it is necessary to disconnect the CN1101 connector on the MFLB Assy and remove the upper unit (jog and display block), because the communication line is shared between audio output and display functions.



■ Communication Soft

- Windows standard Hyper-Terminal
- Tera Term, CCT Win etc.

[Setup]

- Baud Rate : 4800bps
- Data Bits : 8bit
- Stop Bits : 1bit
- Parity : None

■ Communication Command

Command	Name	Description
AD	Audio Play	To search for a designated piece of music, and start audio playback
RJ	Reject	To stop audio playback and disc rotation
OP	Open	To eject the disc

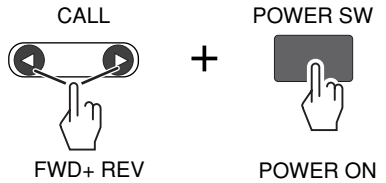
Supplement
(AD: Audio Play)
If the AD command is executed after disc insertion, audio playback of the designated piece of music starts.

Example: For audio playback of the third piece of music: 3AD
Note: Designate the number in the range from 1 to the number of pieces of music recorded.

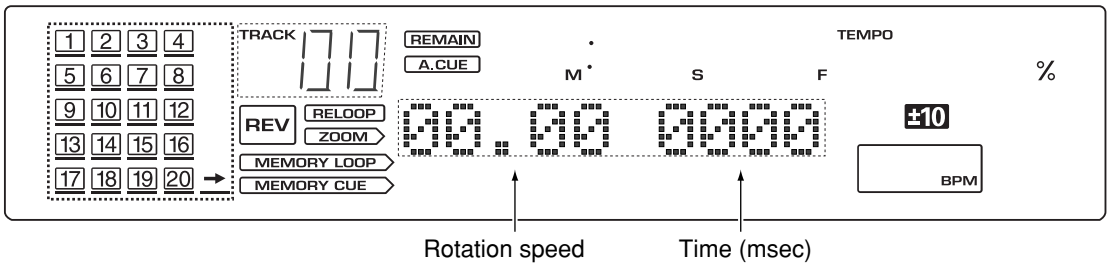
❹ Mode for checking the load on the Jog dial

In this mode, the load (light/heavy) on the Jog dial while it is rotated is subjectively measured.

JOG Check Mode : ON



FL display



Measuring method

In this state, if you rotate the Jog dial rapidly either clockwise or counterclockwise, figures are displayed.
For example, if "16.14 0135" is displayed, it means as follows:
16.14: Highest speed (given that the normal [1x] speed is when it takes 1.8 sec for the Jog dial to rotate one full turn.)
0135: Time (msec) required for the Jog dial to decrease its speed from 3x speed to 1.5x speed

As to the time required for the Jog dial to decrease its speed, if the measurement is performed for several times repeatedly, from the second measurement and afterward, the average of the current required time and the previous required time is displayed. Thus, after several measurements, the result becomes closer to the mean.

Notes

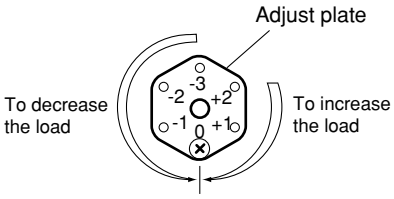
- Perform the measurement of load on the Jog dial more than three times.
- The measurement result is displayed only when the Jog dial is rotated 7 times normal speed "07.00" or more.

Management value

Jog management value: 150 ± 25 (msec)

Load adjustment method

Remove the screw fixing the adjust plate, then screw it into the hole corresponding to the value (-1, -2, -3, +1, or +2) for a load to be added:
-1, -2, -3 : To decrease the load
+1, +2 : To increase the load



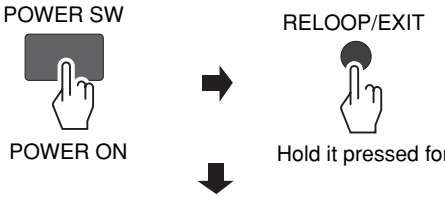
JOG Check Mode : CANCEL

❺ Mode for checking the error log

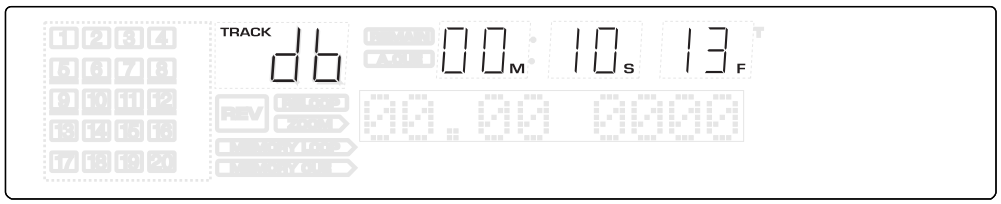
If any abnormality occurs in normal use, the following error numbers are displayed in the display block.

• **How to check the error log**

Error Check Mode : ON

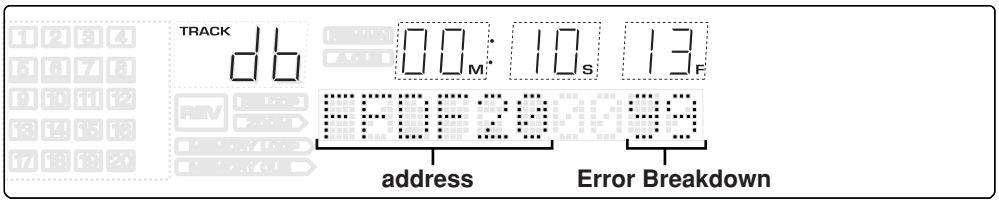


FL display



• If a JOG dial is rotated on the right, it will become error display mode.

FL display



• By entering this mode, the latest 16 errors can be checked.
In this mode, an error breakdown code is displayed in the minute display block, and the address where that error breakdown code is stored in the memory of the microcomputer is displayed in the second and frame display block (in hexadecimal notation).
The error breakdown code of the latest error is stored at address FFDF20, and that of the oldest error is stored at address FFDF2F. You can change the address by turning the Jog dial from FFDF20 to FFDF2F (initial value: FFDF20).

Error No.	Error Name	Error Breakdown
E-6001	FPGA PROGRAM DOWNLOAD ERROR	61: The program cannot be written in the FPGA.
E-6002	DSP PROGRAM DOWNLOAD ERROR	62: The program cannot be written in the DSP.
E-7201	TOC READ ERROR	26: The TOC data cannot be read.
E-8301	PLAYER ERROR (startup problem)	11: Any error occurring before disc recognition and leading to operation stop is categorized as this error.* 20: The spindle motor does not rotate.* 21: No disc (focus error level: low)* 24: The address cannot be read.*
E-8302	PLAYER ERROR (playback problem)	12: Your desired address cannot be searched. 15: The address cannot be read. 22: The focus servo cannot close. 23: The tracking servo cannot close.
E-8303	PLAYER ERROR (problem in writing in the buffer)	99: Problem in writing in the buffer
E-9101	MECHANICAL TIME OUT	90: Abnormality in the disc-loading mechanism (timeout)

* If this error occurs before the inserted disc is recognized as a CD, the disc is automatically ejected. In this case, the error code No. is not displayed, but you can see the error breakdown code stored in memory. Only in the case of breakdown code 20 (the spindle motor does not rotate), the disc will not be ejected, because this is not a problem of the media.

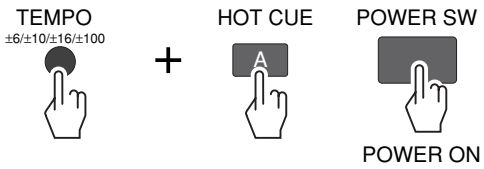
Error Check Mode : CANCEL

❻ Mode for checking the version of the software program

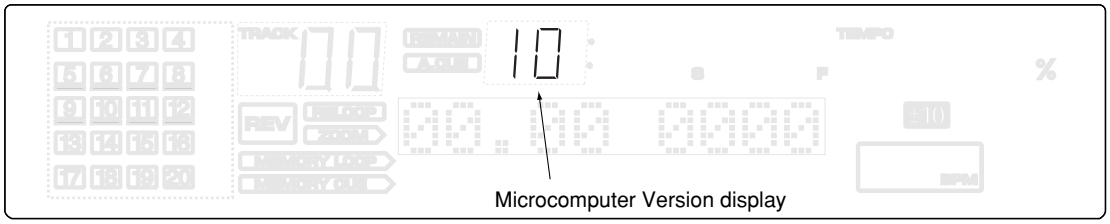
In this mode, the version of the software program for each microcomputer can be checked.

• How to check the software version for the display microcomputer

Ver. Check Mode : ON

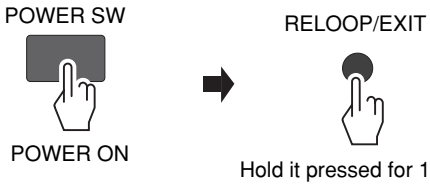


FL display (10 for the first version)

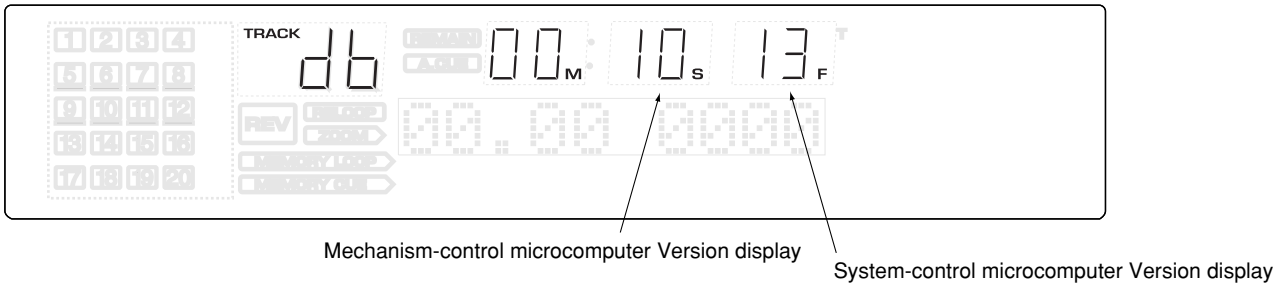


• How to check the software version for the mechanism-control and system-control microcomputers

Ver. Check Mode : ON



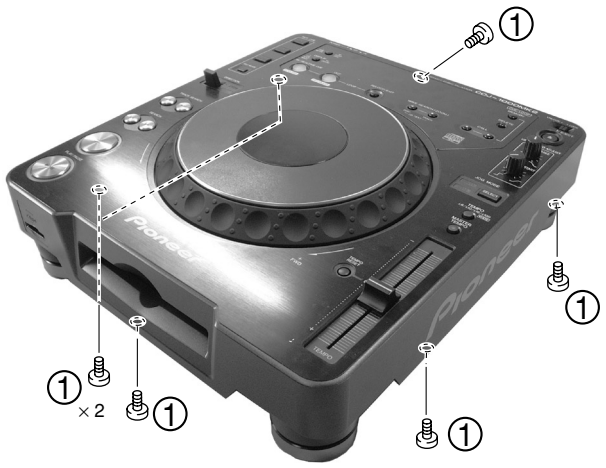
FL display (13 for the first version)



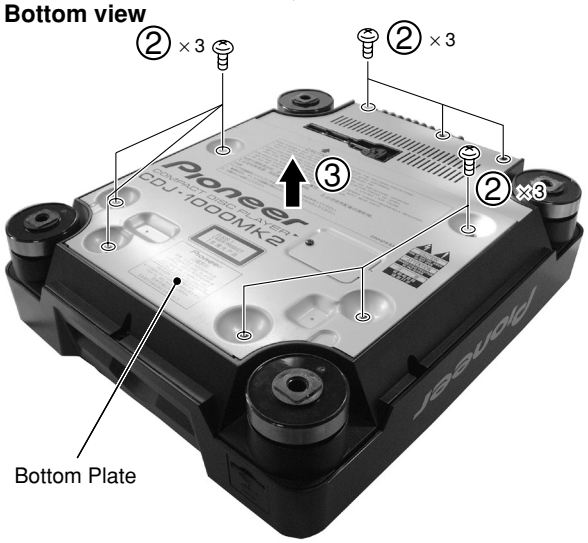
Ver. Check Mode : CANCEL

7.1.2 DISASSEMBLY

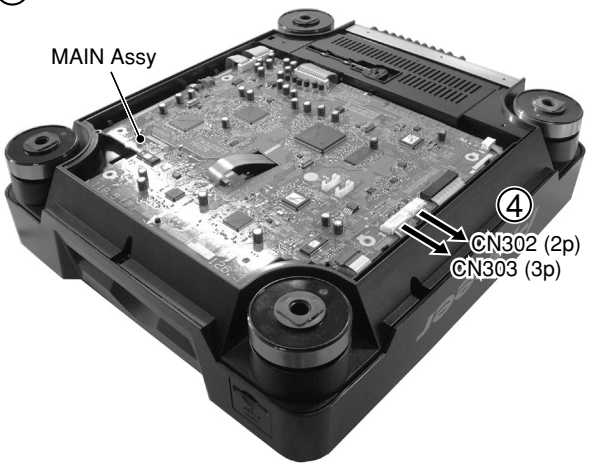
1 MAIN Assy



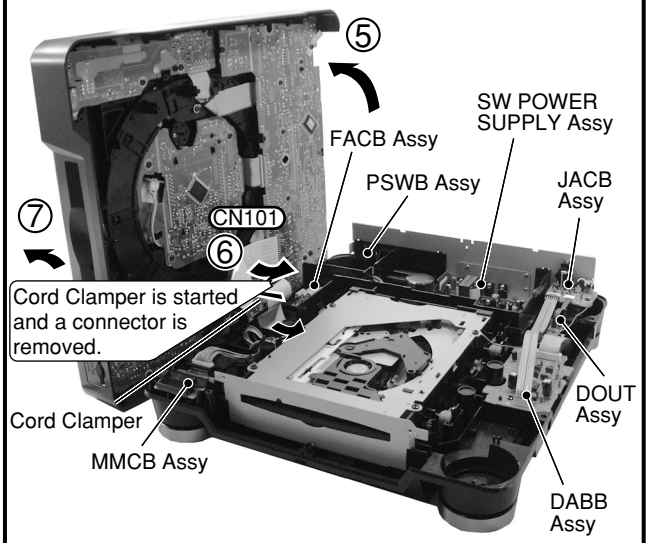
• **Bottom view**



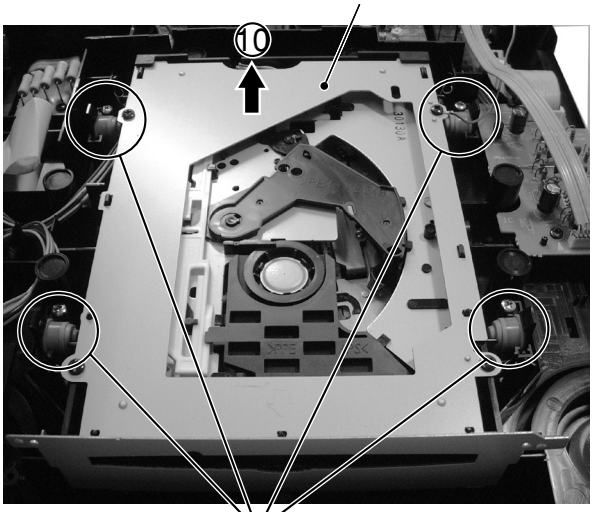
④ Disconnect two Connectors.



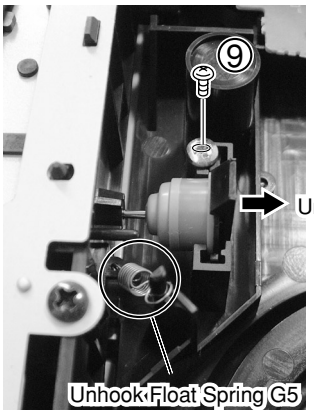
2 SLOT-IN MECHANISM Assy

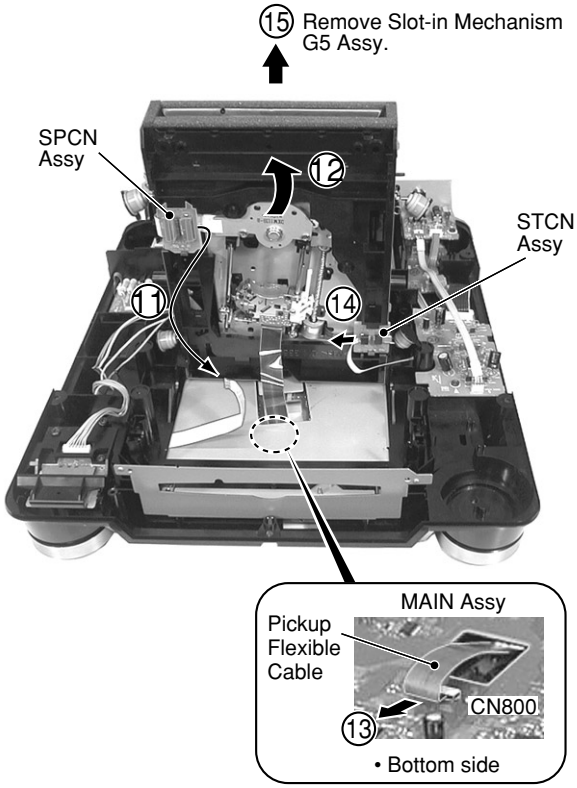


Slot-in Mechanism G5 Assy

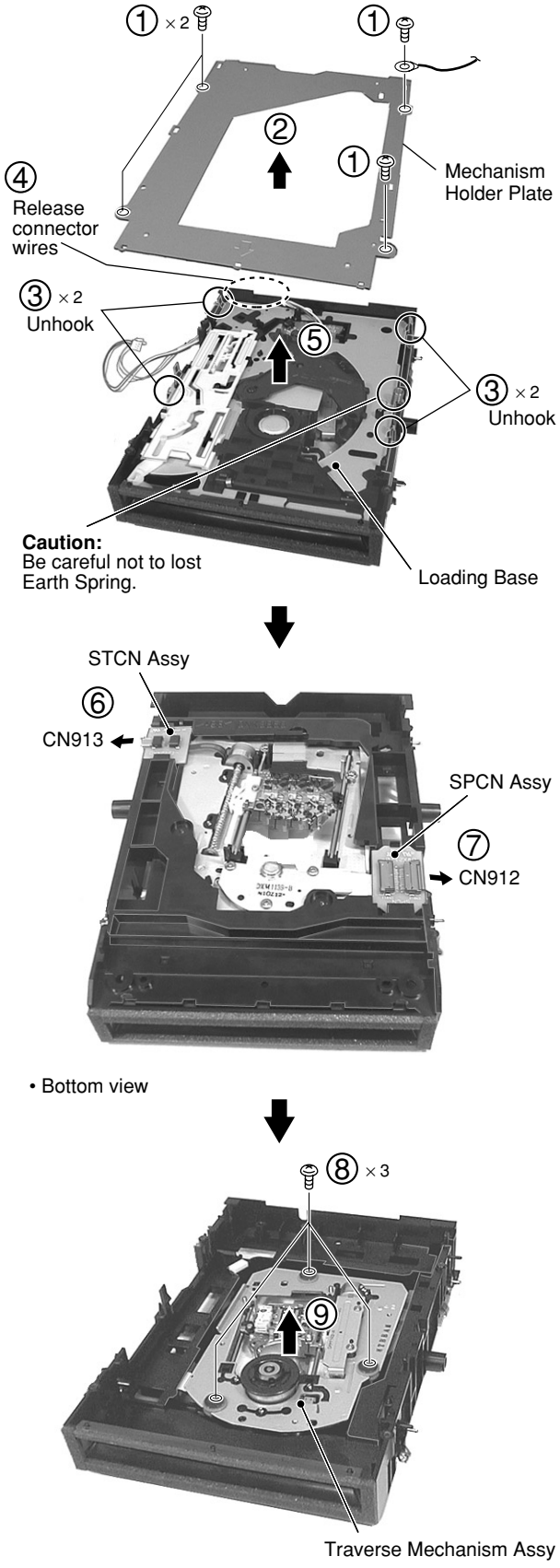


⑧ Unhook four springs and Dampers.





3 Traverse Mechanism Assy

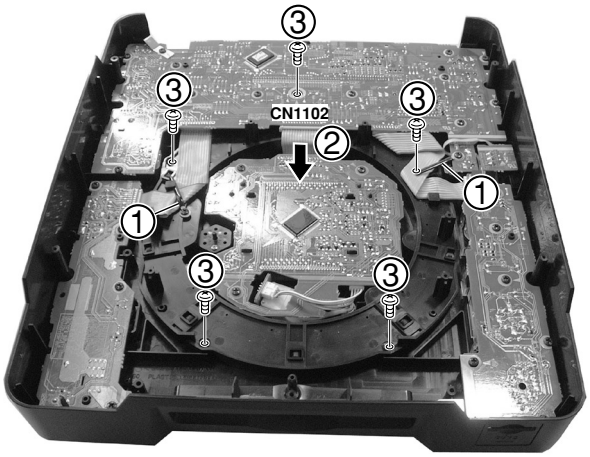


4 JOG Section

① Release a Cord Clamper.

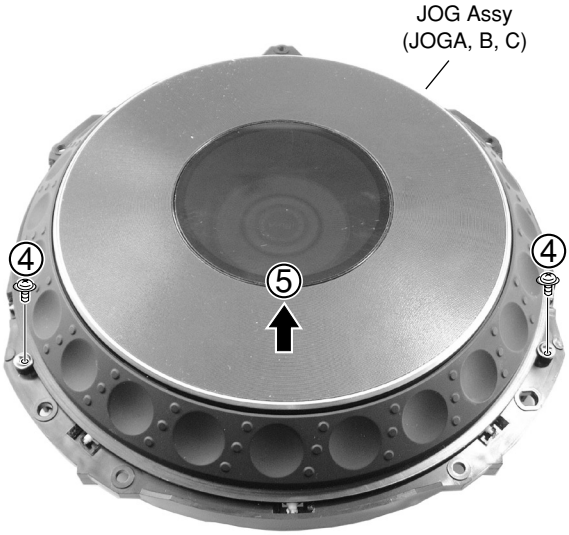
② Disconnect a connector assy (CN1102).

③ Remove five screws.



④ Remove two screws.

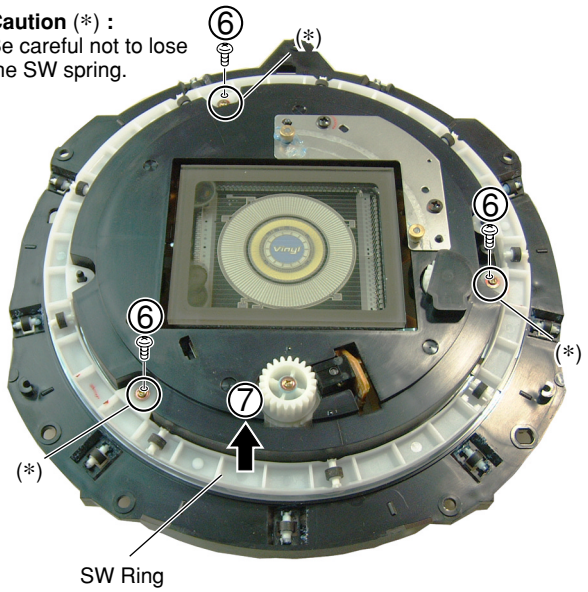
⑤ Remove the JOG ASSY (JOG A, B and C)



⑥ Remove three screws.

⑦ Remove the SW Ring.

Caution (*) :
Be careful not to lose the SW spring.



Caution in Sheet SW Installation

① Be careful not to bend and fold the Sheet SW.

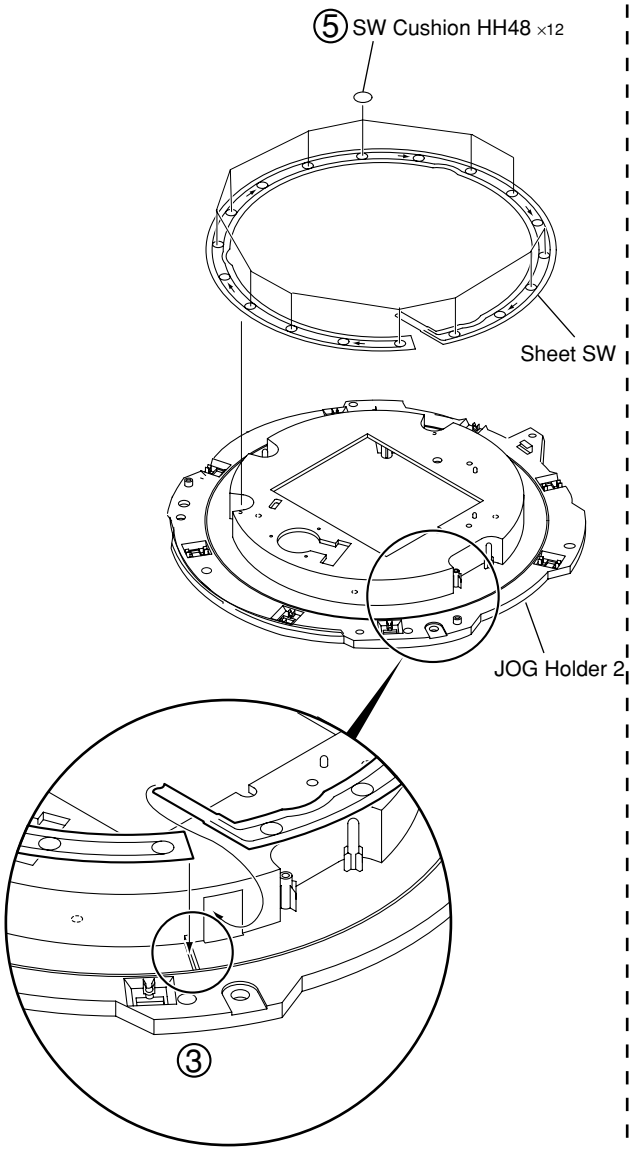
② Confirm that the dust or trash does not adhere to pasting side (JOG Holder).
In addition, when tearing off the former Sheet SW and putting a new part, completely wipe the JOG Holder off with alcohol so that paste does not remain on the pasting side of JOG Holder.

③ When putting the Sheet SW, match the position not to run aground on rib of the internal circumference of JOG Holder.

④ Sheet SW pushes all the sides including the point of contact fully, and put it. (No good air getting into it.)
(When the air got into it, remove it and replace the new one. Do not recycle it.)

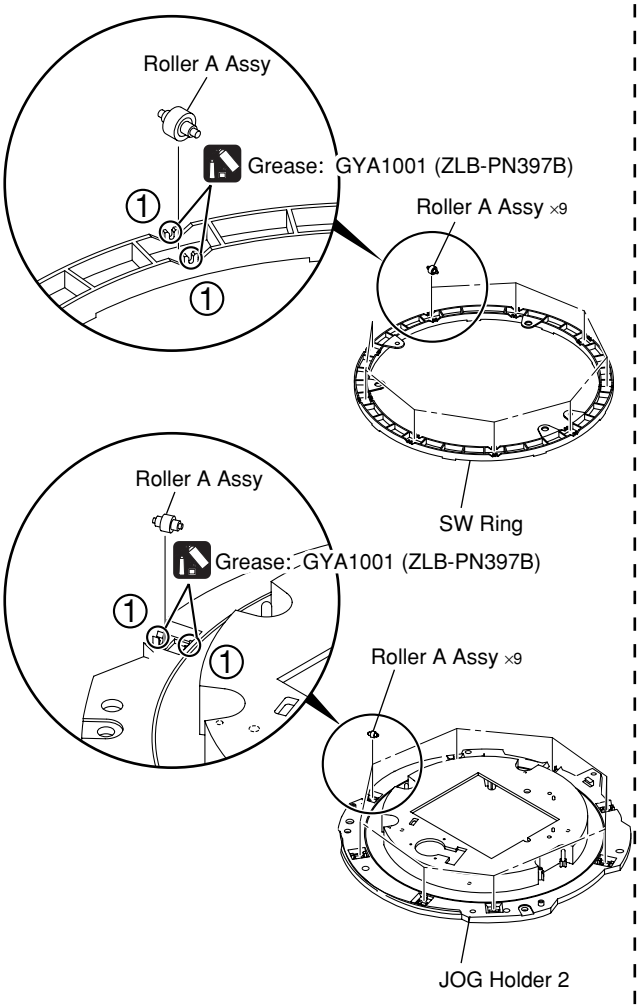
⑤ Put the SW Cushion HH48 on direction arrow part (12 places) of the Sheet SW.

⑥ When inserting a cable in connector, release a lock by all means, and connector locks after inserting it.



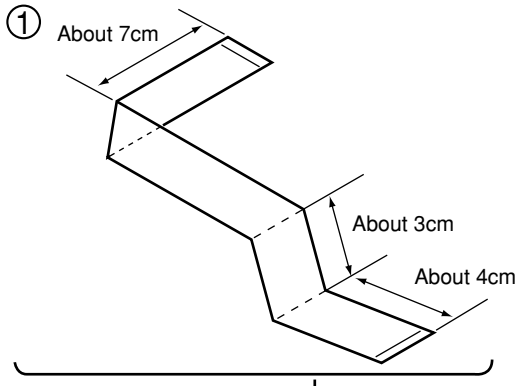
Caution in Roller A Assy Installation

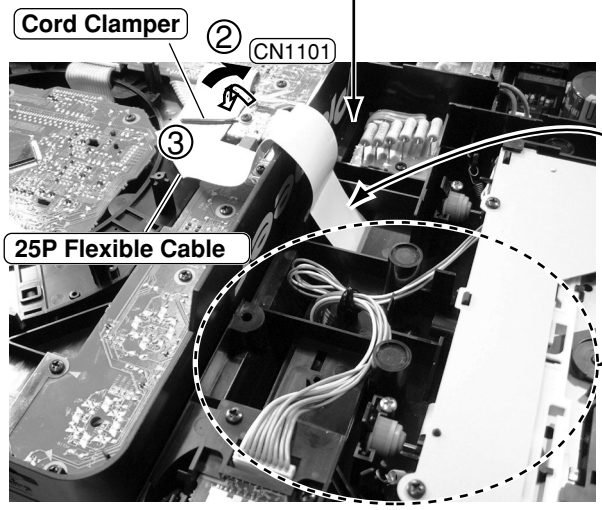
① Apply a grease (GYA1001) to the shaft bearing section of JOG Holder side and SW Ring side.
(Apply it to two places for roller one.)
(Be careful so that grease does not adhere to rubber section of the roller.)



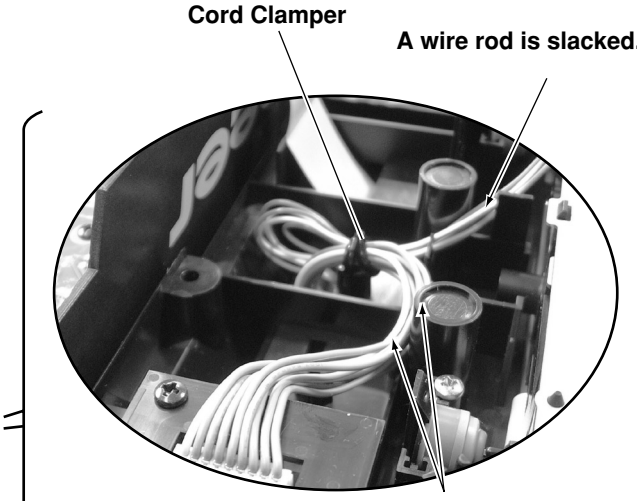
■ The processing method of each wire rod

● Processing of flexible cable





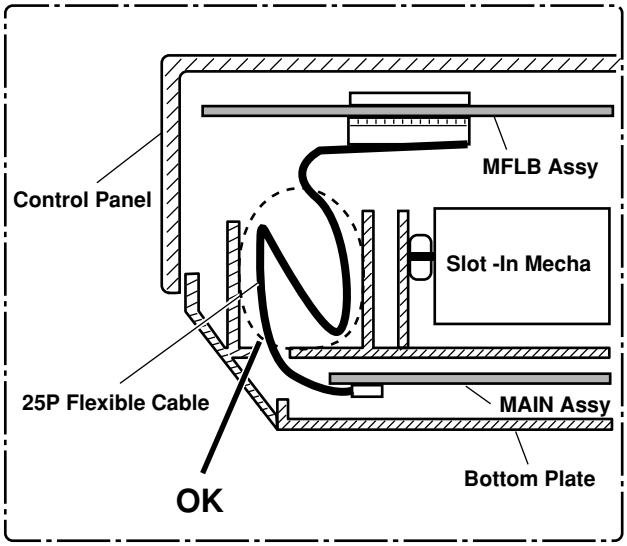
● Processing of each wire rod



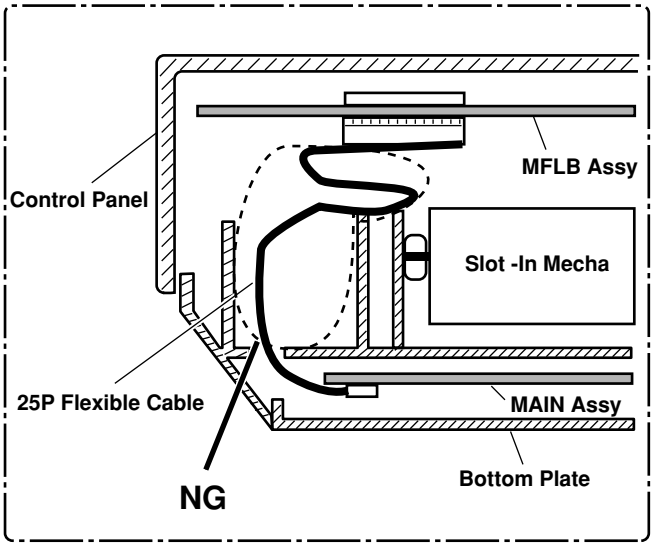
It processes so that a wire rod may n
ot run aground.

● The cautions on an assembly

[OK]



[NG]

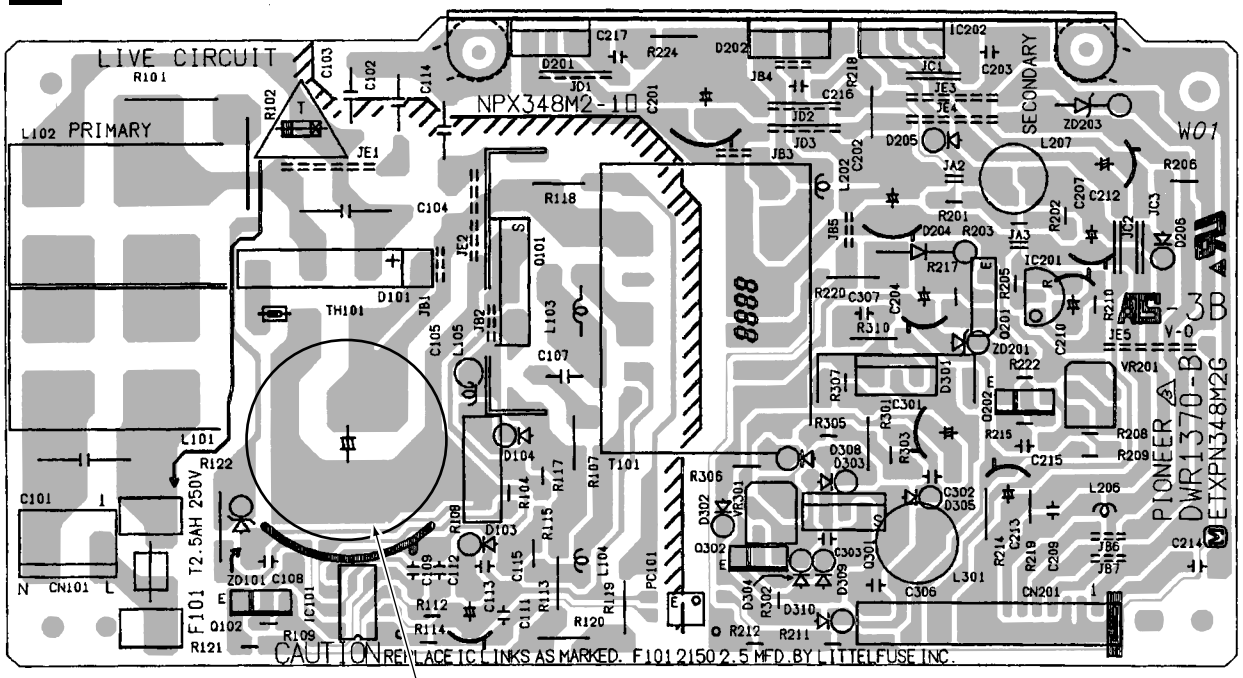


7.1.3 On Discharge of the Capacitor

If the power voltage of the capacitor (C105) in the SW POWER SUPPLY Assy is high (about 11 V) even one minute after the power is turned off.
The voltage will be no danger of electric shock.

P SW POWER SUPPLY ASSY

SIDE A



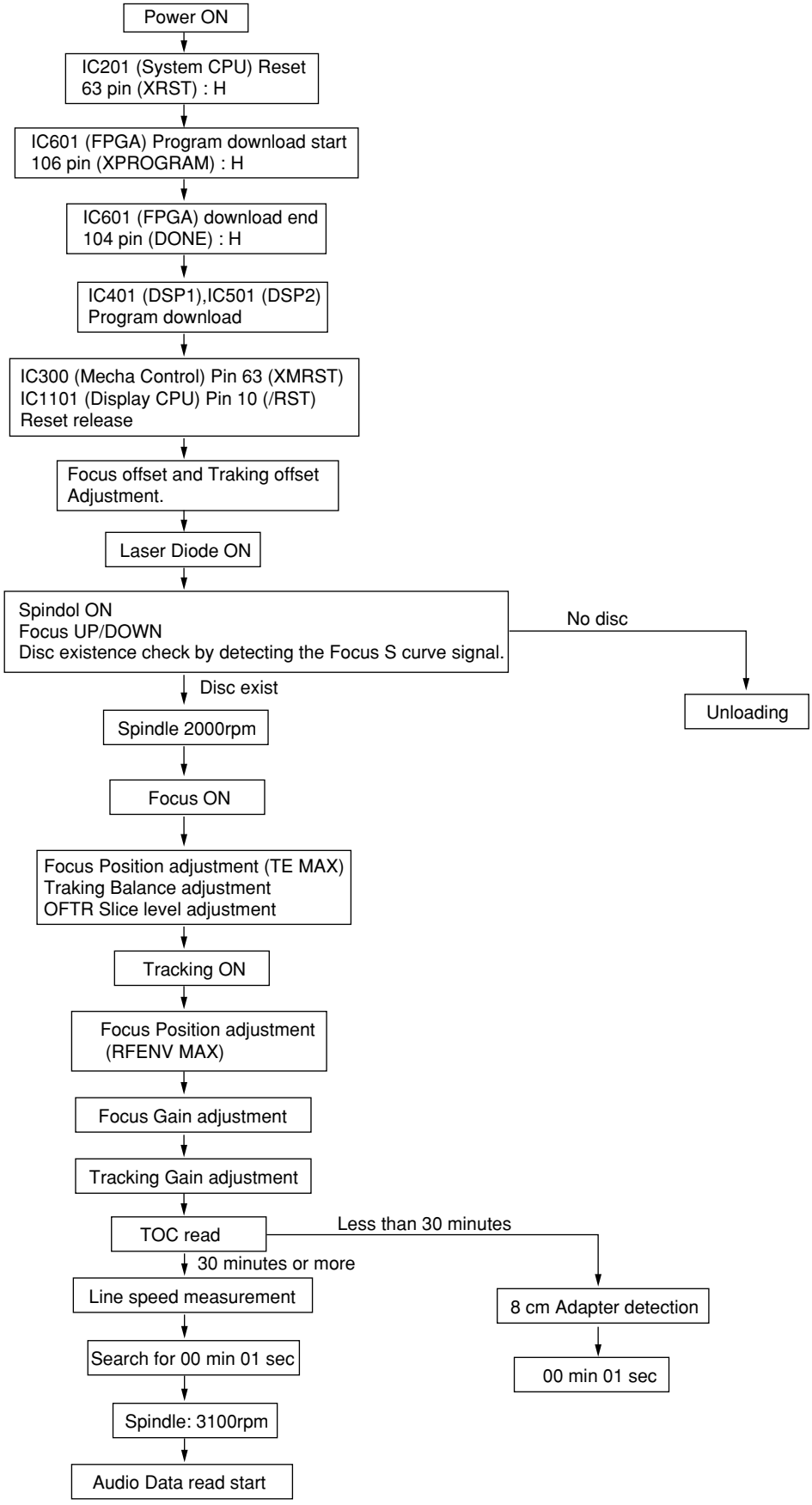
C105

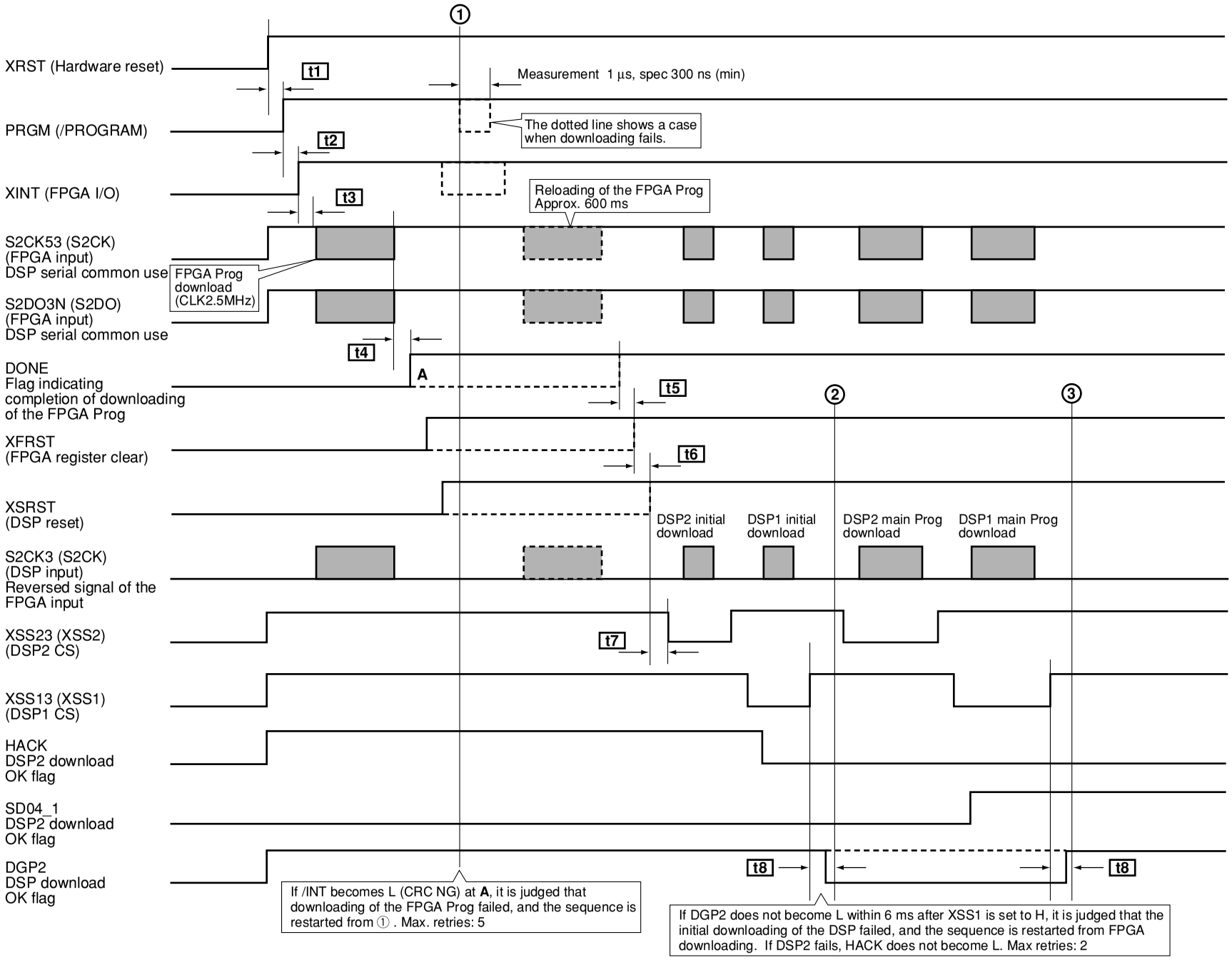
7.1.4 CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Pickup leneses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

7.1.5 POWER ON SEQUENCE




①
XRST (Hardware reset)
t1
Measurement 1 µs, spec 300 ns (min)
PRGM (/PROGRAM)
The dotted line shows a case when downloading fails.
t2
XINT (FPGA I/O)
t3
Reloading of the FPGA Prog Approx. 600 ms
S2CK53 (S2CK)
(FPGA input)
DSP serial common use
FPGA Prog download (CLK2.5MHz)
S2DO3N (S2DO)
(FPGA input)
DSP serial common use
t4
DONE
Flag indicating completion of downloading of the FPGA Prog
A
t5
②
③
XFRST
(FPGA register clear)
t6
XSRST
(DSP reset)
DSP2 initial download
DSP1 initial download
DSP2 main Prog download
DSP1 main Prog download
S2CK3 (S2CK)
(DSP input)
Reversed signal of the FPGA input
XSS23 (XSS2)
(DSP2 CS)
t7
XSS13 (XSS1)
(DSP1 CS)
HACK
DSP2 download
OK flag
SD04_1
DSP2 download
OK flag
DGP2
DSP download
OK flag
t8
t8
If /INT becomes L (CRC NG) at A, it is judged that downloading of the FPGA Prog failed, and the sequence is restarted from ① . Max. retries: 5
If DGP2 does not become L within 6 ms after XSS1 is set to H, it is judged that the initial downloading of the DSP failed, and the sequence is restarted from FPGA downloading. If DSP2 fails, HACK does not become L. Max retries: 2

• Action of the CPU

t1 Measurement about 2.5 ms
After checking that /INT is L, the CPU sets /PROGRAM to H.
The FPGA checks that /PROGRAM is L, and sets /INIT and DONE to L.

t2 Measurement approx. 2.5 µs
The CPU waits until /INT becomes H.
The FPGA checks that /PROGRAM is H, and clears the Configuration memory, changes /INT to open drain output, and confirms that /INT is H.

t3 Measurement approx. 20 µs
The CPU waits for several dozens of microseconds.
The FPGA confirms that /INT is H, then checks the Mode pins (M0-M2).

t4
The CPU waits either until DONE becomes H or /INIT becomes L.
When DONE becomes H, it is judged as completion of downloading.
If /INT becomes L, it is judged that the downloading failed, and the retrial starts.
If /INT becomes H and DONE becomes L, this status is temporarily stored in the stack.
→ The program has been changed to execute retries. According to the specifications, as /INT becomes H while the serial CLK is input, waiting is not required. (See the waveform examples.)

If DONE does not become H even after approx. 6 ms of waiting, the sequence is retried from the beginning up to three times.If it fails, a timeout error is generated, and an error message is displayed.

t5 Measurement approx. 1.3 ms
If DONE becomes H, XFRST is set to H in 1 ms.
Clearance of the FPGA register and initialization.

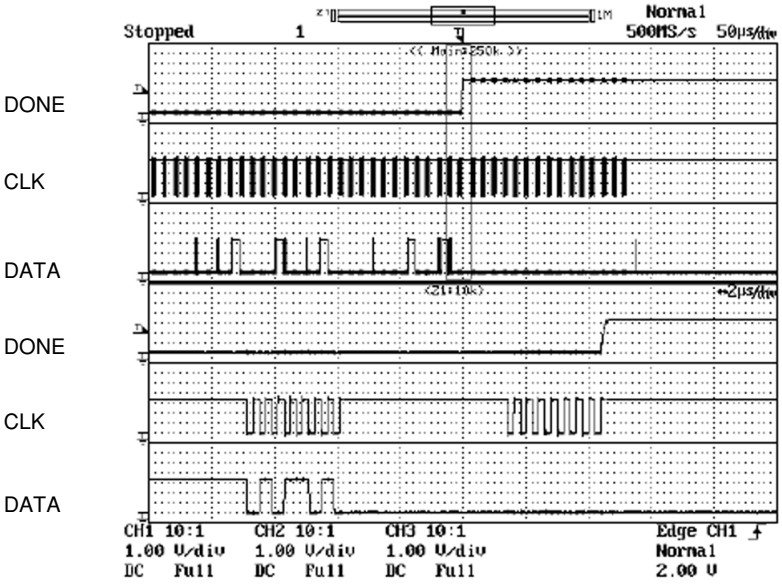
t6 Measurement approx. 5.7 ms
XSRST is set to H 5 ms after XFRST is set to H.
Resetting the software programs of the mechanism-controller and display controller to the defaults

t7 Measurement approx. 600 ms
XSS2 is set to L approx. 500 ms after XSRST is set to H.
After the initially downloaded program is sent to DSP2, XSS2 becomes H. Then, XSS1 is set to L to send the initially downloaded program to DSP1. After completion, XSS1 becomes H.

t8
DGP2 is checked (timeout: 6 ms).
Transmission of the DSP program is performed in two steps. At the first step, only the program for port initialization is transmitted, and at the second step, the main program is sent.

First downloading
In a case when the DGP2 pin does not become **L** within 6 ms after the first data transmission is completed
It is judged that downloading failed, and retries start.
* If the flag (HACK) indicating that downloading is OK from DSP2 becomes L and if downloading is OK for DSP1 itself, DSP1 sends L to the CPU as an OK flag (DGP2).

Second downloading
In a case when the DGP2 pin does not become **H** within 6 ms after the second data transmission is completed
It is judged that downloading failed, and retries start.
* If the flag (SDO4_1) indicating that downloading is OK from DSP2 becomes H and if downloading is OK for DSP1 itself, DSP1 sends H to the CPU as an OK flag (DGP2).



7.2 PARTS
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

• **Lis of IC**

PD3445A8, PD3446A8, PE5387A

■ PD3445A8 (MAIN ASSY: IC201)

System Control UCOM

• Pin Function (1/3)

No.	Pin Name	I/O	Descreption
1	Vcc	-	By the capacitor (0.1μF) It GND-connects.
2	DGP2	I	Motorola DSP (preceding paragraph) Interface
3	XHREQ1	I	
4	XHREQ2	I	Motorola DSP (latter part) Interface
5	XSS1	O	Motorola DSP (preceding paragraph) Interface
6	XSS2	O	Motorola DSP (latter part) Interface
7	DOSW	I	Digital OUT ON/OFF SW detection
8	CNT2	I	Control 2 input terminal
9	CNT1	I/O	Control 1 input and output terminal
10	WFILSH	I	The terminal which detects a flash write-in permission signal
11	Vss	-	Digital GND
12	S2DO	O	The serial output terminal to DSP
13	S1DO	O	A serial output besides a controller
14	S2DI	I	The serial input from DSP
15	S1DI	I	A serial input besides a controller
16	S2CK	O	The serial clock to DSP
17	S1CK	O	A serial clock besides a controller
18	XFRST	O	Reset to FPGA
19	XSRST	O	Reset to circumference IC
20	ASWC	O	Serial change SW enable
21	MUTE	O	Line OUT output MUTE
22	Vss	-	Digital GND
23	MON2	O	Monitor terminal 2
24	XZOFF	O	The terminal for repealing zero detection
25	XDRST	O	The reset terminal for DAC
26	NC	-	-
27	D0	-	FPGA interface (data bus)
28	D1	-	
29	D2	-	
30	D3	-	
31	D4	-	
32	D5	-	
33	D6	-	
34	D7	-	
35	Vcc	-	Power supply (VD5V)
36	A0	-	FPGA interface (data bus)
37	A1	-	
38	A2	-	
39	A3	-	
40	A4	-	

• Pin Function (2/3)

No.	Pin Name	I/O	Description
41	NC	O	It connects with GND.
42	NC	I	
43	NC	I	
44	Vss	-	Digital (GND)
45	NC	I	It connects with GND.
46	NC	I	
47	NC	I	
48	NC	I	
49	NC	I	
50	NC	I	
51	NC	I	
52	NC	I	
53	NC	I	
54	NC	I	
55	KEYI	I	The key processing demand from front CPU
56	TCH	I	JIG touch sensor input
57	Vss	-	Digital GND
58	NC	I	It connects with GND.
59	XMDT	I	MMC detection signal
60	DONE	O	The initialization end signal from FPGA
61	20M	I	It connects with GND.
62	STBY	I	Low power consumption mode
63	XRST	I	Hard reset
64	NMI	I	Compulsive interruption
65	Vss	-	Digital GND
66	EXTAL	I	Crystal oscillation
67	XTAL	I	
68	Vcc	-	Digital 5V
69	NC	O	-
70	XSRD	O	FPGA Read
71	XSWR	O	FPGA Wright
72	NC	O	-
73	MD0	I	CPU mode setup
74	MD1	I	
75	MD2	I	
76	Avcc	-	The power supply terminal of A/D conversion machine, and D/A conversion machine
77	VREF	-	The standard voltage input terminal of A/D conversion machine, and D/A conversion machine
78	ADCT	I	Slider center value
79	ADIN	I	Slider data value
80	NC	I	It connects with GND.

• Pin Function (3/3)

No.	Pin Name	I/O	Description
81	NC	I	It connects with GND.
82	NC	I	
83	NC	I	
84	NC	O	
85	NC	O	
86	AVss	-	The grand terminal of A/D conversion machine, and D/A conversion machine
87	JOG1	I	JOG pulse input 1
88	JOG2	I	JOG pulse input 2
89	DQCK	I	Motorola DSP (preceding paragraph) Interface
90	NC	I	It connects with GND.
91	RMIN	I	For a RS232C input
92	Vss	-	GND
93	XMEN	I	MMC chip enable
94	XDEN	I	DAC communication enable
95	ICDT	O	EEPROM data output
96	ICCK	O	EEPROM clock output
97	HRST	I	MMC hard reset output
98	NC	O	It connects with GND.
99	XPRGM	O	FPGA program permission signal
100	XINT	I	-

■ PD3446A8 (MAIN ASSY: IC300)

Mecha. Control UCOM

• Pin Function (3/3)

No.	Mark	Pin Name	I/O	Description
1	Vcc	-	-	Power supply (VD5V)
2	PB0	XDMUTE1	O	Driver IC mute control (0: MUTE 1: MUTE release)
3	PB1	-	I	It connects with Vss.
4	PB2	FCSG	O	A focus gain is changed.
5	PB3	CRC	O	CRC check result of a sub code (NG 1: 0: O.K.)
6	PB4	XFEPRST	O	FEP reset pulse (0: Reset 1: Reset release)
7	PB5	XDSCRST	O	ADSC reset pulse (0: Reset 1: Reset release)
8	PB6	LDONM	I	LD ON (0: usually 1: LD on-mode)
9	PB7	-	O	NC
10	FEW	WFLASH	I	The write-in enable signal of a flash memory
11	Vss	-	-	GND
12	TxD0	CPUDTIN	O	The serial output to FEP/ADSC
13	TxD1	REMO	O	The serial output to a personal computer/remote control
14	RxD0	CPUDTOUT	I	The serial input from FEP/ADSC
15	RxD1	REMI	I	The serial input to a personal computer/remote control
16	SCK0	SCK	O	The serial communication clock with FEP/ADSC
17	P95	WFLASH	O	The write-in control signal of a flash memory
18	P40	TKS	O	The slice level of TE is chosen. (zero: high-speed 1: low speed)
19	P41	INSW	I	Slider Inside detection switch
20	P42	XDMUTES	O	Stepper control
21	P43	DSPSTOP	O	Read-out of DSP is forbidden.
22	Vss	-	-	GND
23	P44	-	O	NC
24	P45	-	O	NC
25	P46	GSW	O	OEIC gain selection (0: Low 1: Hi)
26	P47	TMODE	I	Test mode (0: It shifts to test mode)
27	D0	D0	I/O	Data bus
28	D1	D1	I/O	
29	D2	D2	I/O	
30	D3	D3	I/O	
31	D4	D4	I/O	
32	D5	D5	I/O	
33	D6	D6	I/O	
34	D7	D7	I/O	
35	Vcc	-	-	Power supply (VD5V)
36	A0	A0	O	Address bus
37	A1	A1	O	
38	A2	A2	O	
39	A3	A3	O	
40	A4	A4	O	

• Pin Function (2/3)

No.	Mark	Pin Name	I/O	Discription
41	A5	A5	O	Address bus
42	A6	-	I	It connects with Vss.
43	A7	-	I	
44	Vss	-	-	GND
45	A8	-	I	It connects with Vss.
46	A9	-	I	
47	A10	-	I	
48	A11	-	I	
49	A12	-	I	
50	A13	-	I	
51	A14	-	I	
52	A15	-	I	
53	A16	-	I	
54	A17	-	I	
55	P52	LPS1	I	A loading mechanism's condition
56	P53	LPS2	I	
57	Vss	-	-	GND
58	WAIT	-	I	It connects with Vss.
59	P61	-	I	
60	P62	ILMASK	O	The mask of the Interruption circuit is carried out.
61	P67	-	I	It connects with Vss.
62	STBY	XSTBY	I	It connects with Vss.
63	RES	XMRST	I	Reset input (0:reset 1:reset release)
64	NMI	NMI	I	It connects with Vss.
65	Vss	Vss	-	GND
66	EXTAL	EXTAL	I	(20MHz)
67	XTAL	XTAL	I	(20MHz)
68	Vcc	Vcc	-	Power supply (VD5V)
69	AS	-	O	NC
70	RD	XRD	O	Read strobe signal
71	S39/PE7	XWR	O	Write strobe signal
72	VDD4	-	O	NC
73	S40/PF0	MD0	I	CPU mode setup
74	S41/PF1	MD1	I	
75	S42/PF2	MD2	I	
76	S43/PF3	-	-	Power supply (VD3V)
77	S44/PF4	-	-	
78	S45/PF5	HI	I	Function (Analog)
79	S46/PF6	RFDIF	I	
80	S47/PF7	VHALF	I	Function

• Pin Function (3/3)

No.	Mark	Pin Name	I/O	Description
81	AN3	OFTR	I	Function
82	P74	-	I	It connects with Vss.
83	AN5	P75	I	The monitor of ST1
84	DA0	ST1	O	Stepper drive (analog)
85	DA1	ST2	O	
86	AVss	-	-	Analog GND
87	IRQ0	MBLKCK	I	The interruption demand from FPGA
88	IRQ1	BLKCK	I	
89	IRQ2	CPUIRQ	I	
90	P83	-	I	It connects with Vss.
91	P84	-	I	
92	Vss	-	-	GND
93	PA0	OFTR	I	Function
94	TCLKB	TKCNT	I	Track pulse input (pulse width is measured and speed is detected)
95	PA2	ENC	O	Serial input enable of ADSC CIRC part (0: permission 1: prohibition)
96	PA3	ENS	O	Serial input enable of ADSC part (0: permission 1: prohibition)
97	PA4	TKCNT	I	Track pulse input
98	PA5	XDMUTE2	O	Driver IC mute control (0:MUTE 1:MUTE release)
99	PA6	FESEN	O	FEP serial input enable (0: permission 1: prohibition)
100	TIOCB2	FG	I	FG pulse input

■ PE5387A (MFLB ASSY: IC1101)

Disply Control UCOM

• Pin Function (1/3)

No.	Mark	Pin Name	I/O	Description
1	VDD	-	-	Power supply (VD5V)
2	P37	LED15, Model distinction	O	LOUT, and NEXT / NET distinction
3	P36/BUZ	LED14	I	LIN
4	P35/PCL	LED13	O	CRED
5	P34/TI2	LED12	O	CGREEN
6	P33/TI1	LED11	O	BRED
7	P32/TO2	LED10	O	BGREEN
8	P31/TO1	LED9	O	ARED
9	P30/TO0	LED8	O	AGREEN
10	RESET	RESET	I	RESET
11	X2	CLOCK	-	(5MHz)
12	X1	CLOCK	-	(5MHz)
13	IC	GND	-	-
14	XT2	NC	-	-
15	P04/XT1	SW0	I	Reverse Switch
16	VDD	-	-	-
17	P27/SCK0	SCLK1	I	The clock input from host CPU
18	P26/SO0/SB1	SDO1	O	The data output to host CPU
19	P25/SI0/SB0	SDI1	I	The data input from host CPU
20	P24/BUSY	ENABLE	O	The enable output to host CPU
21	P23/STB	BLK	O	The blank output to FL drive
22	P22/SCK1	SCLK2	O	The clock output to FL driver
23	P21/SO1	SDO2	O	The strike robe to FL driver
24	P20/SI1	STB	O	NC
25	Avss	GND	-	GND
26	P17/ANI7	LED5	I	-
27	P16/ANI6	KEYAD5	I	Key input
28	P15/ANI5	KEYAD4	I	
29	P14/ANI4	KEYAD3	I	
30	P13/ANI3	KEYAD2	I	
31	P12/ANI2	KEYAD1	I	
32	P11/ANI1	VOL1	I	Turntable VOL
33	P10/ANI0	VOL2	I	
34	AVDD	VDD	-	Power supply (+5V)
35	AVREF	VDD	-	
36	P03/INT3/CI0	LED16	O	VINYL
37	P02/INTP2	LED7	O	CDJ
38	P01/INTP1	LED6	O	MT
39	P00/INTP/TI0	ELSW	I	Eject Switch
40	Vss	-	-	-

• Pin Function (2/3)

No.	Mark	Pin Name	I/O	Description
41	P74	LED4	O	TRES
42	P73	LED3	O	MMC
43	P72	LED2	O	CUE
44	P71	LED1	O	PLAY
45	P70	LED0	O	REVERSE
46	VDD	-	-	Power supply (5V)
47	P127/FIP52	S37	O	FL display
48	P126/FIP51	S36	O	
49	P125/FIP50	S35	O	
50	P124/FIP49	S34	O	
51	P123/FIP48	S33	O	
52	P122/FIP47	S32	O	
53	P121/FIP46	S31	O	
54	P120/FIP45	S30	O	
55	P117/FIP44	S29	O	
56	P116/FIP43	S28	O	
57	P115/FIP42	S27	O	
58	P114/FIP41	S26	O	
59	P113/FIP40	S25	O	
60	P112/FIP39	S24	O	
61	P111/FIP38	S23	O	
62	P110/FIP37	S22	O	
63	P107/FIP36	S21	O	
64	P106/FIP35	S20	O	
65	P105/FIP34	S19	O	
66	P104/FIP33	S18	O	
67	P103/FIP32	S17	O	
68	P102/FIP31	S16	O	
69	P101/FIP30	S15	O	
70	P100/FIP29	S14	O	
71	P97/FIP28	S13	O	
72	P96/FIP27	S12	O	
73	P95/FIP26	S11	O	
74	P94/FIP25	S10	O	
75	P93/FIP24	S9	O	
76	P92/FIP23	S8	O	
77	P91/FIP22	S7	O	
78	P90/FIP21	S6	O	
79	VLOAD	-	-	-
80	P87/FIP20	S5	O	FL display

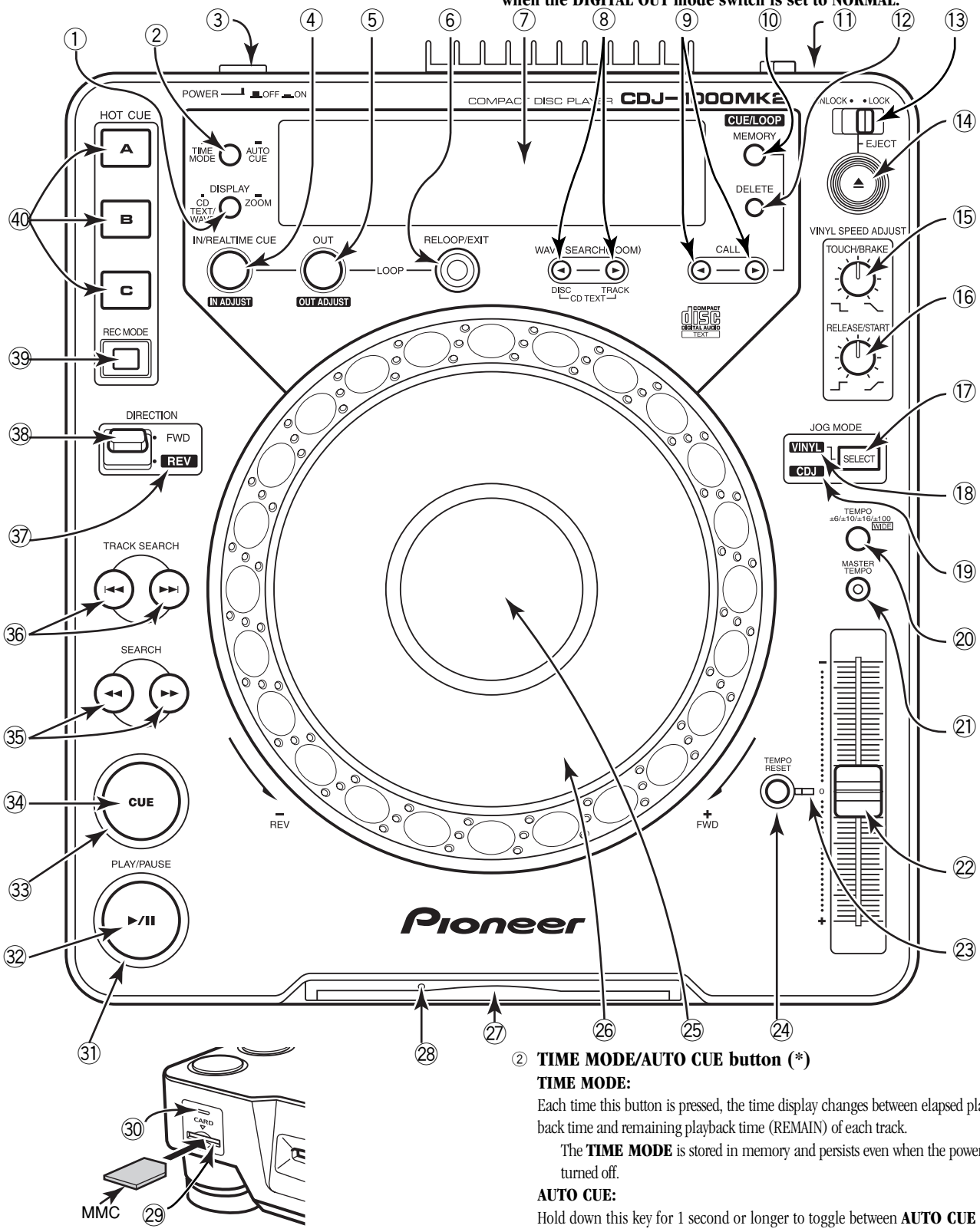
• Pin Function (3/3)

No.	Mark	Pin Name	I/O	Description
81	P86/FIP19	S4	O	FL display
82	P85/FIP18	S3	O	
83	P84/FIP17	S2	O	
84	P83/FIP16	S1	O	
85	P82/FIP15	G16	O	
86	P81/FIP14	G15	O	
87	P80/FIP13	G14	O	
88	FIP12	G13	O	
89	FIP11	G12	O	
90	FIP10	G11	O	
91	FIP9	G10	O	
92	FIP8	G9	O	
93	FIP7	G8	O	
94	FIP6	G7	O	
95	FIP5	G6	O	
96	FIP4	G5	O	
97	FIP3	G4	O	
98	FIP2	G3	O	
99	FIP1	G2	O	
100	FIP0	G1	O	

8. PANEL FACILITIES

■ Top Panel

Operation buttons marked with the asterisk (*) are disabled when the DIGITAL OUT mode switch is set to NORMAL.



① **DISPLAY CD TEXT/WAVE (ZOOM) button (*)**

Each press of this button toggles the display between WAVE display and CD-TEXT disc/track title display. When the button is held down for 1 second or longer, the WAVE display cycles between the 1 track full-scale and 2x zoom scale.

② **TIME MODE/AUTO CUE button (*)**

TIME MODE:

Each time this button is pressed, the time display changes between elapsed playback time and remaining playback time (REMAIN) of each track.

The **TIME MODE** is stored in memory and persists even when the power is turned off.

AUTO CUE:

Hold down this key for 1 second or longer to toggle between **AUTO CUE** on and off.

AUTO CUE on/off status is stored in memory and persists even when the power is turned off.

③ **POWER switch OFF/ON**

This switch is located on the rear panel of the unit.

④ **LOOP IN/REALTIME CUE/IN ADJUST button/indicator (*)**
Real-time cue
Enter loop in point
Loop in point adjust

⑤ **LOOP OUT/OUT ADJUST button/indicator (*)**
Enter loop out point
Loop out point adjust

⑥ **RELOOP/EXIT button (*)**

⑦ **Display**

⑧ **WAVE SEARCH (ZOOM)/CD TEXT buttons (◄,►) (*)**
This button moves the displayed area when WAVE is in zoom display mode.
In the TEXT display mode, pressing the ◄ button will display the disc title and pressing the ► button will display the track title.

⑨ **CUE/LOOP CALL buttons (◄,►) (*)**
Calls Cue points and Loop points stored in internal memory or external memory (when a memory card is inserted). (When a memory card is inserted, the external memory takes precedence.)

⑩ **CUE/LOOP MEMORY button (*)**
Stores Cue points and Loop points in internal memory or external memory (when a memory card is inserted). (When a memory card is inserted, the external memory takes precedence.)

⑪ **DIGITAL OUT mode switch (DJ/NORMAL)**
This switch is located on the unit's rear panel.
When set to DJ, the DIGITAL OUT connector outputs audio data alone. When set to NORMAL, digital data (including sub-codes) is output, but the unit's DJ functions are not supported (operation buttons marked with the asterisk (*) are disabled). No sound will be produced in the Pause mode.

⑫ **CUE/LOOP DELETE button (*)**
Deletes Cue points or Loop points stored in internal memory or external memory (when memory card is inserted). (When a memory card is inserted, the external memory takes precedence.)

⑬ **EJECT UNLOCK/LOCK switch**
UNLOCK: In this mode the disc can be ejected even during playback.
LOCK: In this mode, the disc cannot be ejected during playback. The disc can be ejected when in pause mode.

⑭ **EJECT button (⏏)**
When this button is pressed the disc is ejected through the disc insertion slot when it stops rotating. When the **EJECT UNLOCK/LOCK** switch is set to [LOCK] position, the disc can only be ejected when in pause mode.

⑮ **VINYL SPEED ADJUST TOUCH/BRAKE dial (*)**
When the **JOG MODE SELECT** button is set to [VINYL] position, you can use this dial to adjust the speed by which the playback stops when the surface of the Jog dial is pressed.
Playback stops faster as the dial is turned counterclockwise and stops slower as the dial is turned clockwise.

⑯ **VINYL SPEED ADJUST RELEASE/START dial (*)**
When the **JOG MODE SELECT** button is set to [VINYL] position, you can use this dial to adjust the speed by which playback starts after you take your hand off the surface of the Jog dial. Playback starts normal speed faster as the dial is turned counterclockwise and takes longer time to return to normal speed when turned clockwise.

⑰ **JOG MODE SELECT button (*)**
VINYL mode: when the surface of the Jog dial is pressed during playback, playback stops and if the dial is rotated, music is output according to the speed the dial is turned.
The **JOG MODE** is stored in memory and remains in memory even if the power is turned off.
CDJ mode: above operation is not performed even when the Jog dial surface is pressed.

⑱ **VINYL indicator (*)**
This indicator lights when the **JOG MODE** is in **VINYL** mode.

⑲ **CDJ indicator (*)**
This indicator lights when the **JOG MODE** is in **CDJ** mode.

⑳ **TEMPO Control Range button ±6/±10/±16/±100 WIDE (*)**
Each time the button is pressed, the range changes (±6%/±10%/±16%/±100%).

㉑ **MASTER TEMPO button/indicator (*)**
Each press of the button turns the master tempo function on or off.

㉒ **Tempo Control knob (*)**
Slide the knob towards you (+) to increase the tempo and slide it away from you (–) to decrease it.

㉓ **Tempo Reset indicator (*)**
Shows that the tempo has been reset to [0] (normal tempo) regardless of the position of the **Tempo Control** knob.

㉔ **TEMPO RESET button (*)**
Resets the tempo to [0] (normal tempo) regardless of the position of the **Tempo Control** knob. Press button once more to release it.

㉕ **Jog Dial Display**

㉖ **Jog dial (+FWD/–REV) (*)**

㉗ **Disc Loading Slot**

㉘ **Force Ejection Hole**

㉙ **Memory Card Loading Slot**

㉚ **Memory Card indicator**
Lights when the MMC card is being accessed.
Do not remove the card or turn off the power when this lamp is on.

㉛ **Play/Pause indicator**
Lights during play and flashes during pause.

㉜ **PLAY/PAUSE button (►/II)**

㉝ **CUE indicator (*)**
Lights when a Cue point is set and a search is not being performed. Flashes in pause mode.

㉞ **CUE button (*)**
Cue point settings
Cue point sampler
Back cue

㉟ **SEARCH button (◄◄ ,►►)**

㊱ **TRACK SEARCH button (|◄◄ , ►►|)**

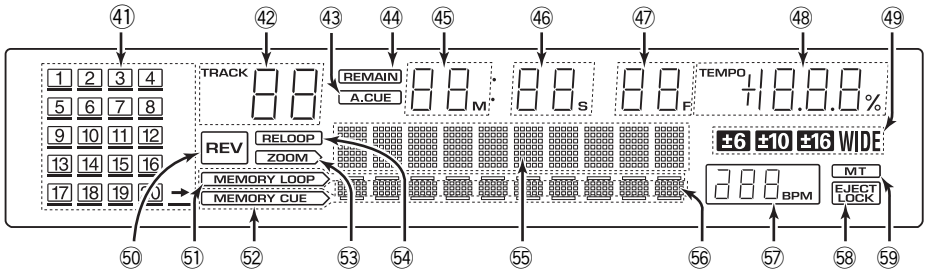
㊲ **Reverse indicator (REV) (*)**
Lights when the **DIRECTION FWD/REV** switch is set to reverse.

㊳ **DIRECTION FWD/REV switch (*)**
Plays tracks backwards when set to the [REV] position (forward position).

㊴ **HOT CUE REC MODE button (*)**
Switches **HOT CUE** button function (REC/CALL).
It is set to call when the power is turned on.

㊵ **HOT CUE A, B, C button/indicator**
It is set to hot cue point recording mode when **A**, **B** and **C** light in red.
It is set to call mode when **A**, **B** and **C** light in green. When the button is pressed, playback starts from the hot cue point. It is off when no hot cue point has been recorded.

■ DISPLAY



㊶ Calendar display (1 - 20 , ➡)

TRACK numbers beyond the current track lights. When the next track is 21 or beyond, ➡ lights. When Cue points or loops are stored, an underscore lights in the corresponding **TRACK** numbers.

㊷ TRACK Number indicator

Displays **TRACK** numbers.

㊸ Auto Cue indicator (A. CUE)

Lights when auto cue is on.

㊹ REMAIN indicator

Indicates that track remaining time is being displayed.

㊺ Time display (min) (M)

㊻ Time display (sec) (S)

㊼ Frame display (F)

One second is 75 frames.

㊽ Playback Tempo display (TEMPO)

Indicates the rate of change in the playback tempo.

㊾ Tempo Adjustment Range indicator (±6, ±10, ±16, WIDE)

Indicates the variable range of the **Tempo Control** knob selected with the **TEMPO Control Range** button. When ±100% is selected, the WIDE indicator appears in the display.

㊿ Reverse indicator (REV)

Indicates that the **DIRECTION FWD/REV** switch is set to reverse ([REV] position).

(51) MEMORY LOOP indicator

Displays the selected track loop memory position above the playback address display (10 points). Even when there may be several memory points in the same block, only one lights.

(52) MEMORY CUE indicator

Displays the selected cue memory positions under the playback address display (10 points). Even when there may be several memory points in the same block, only one lights.

(53) ZOOM indicator

Indicates that WAVE is indicated in zoom mode.

(54) RELOOP indicator

Lights when the unit is in reloop standby or performing a loop.

(55) Wave/Text display

When WAVE is displayed the music level of the current track.

The level is indicated either in 1-track full scale, or zoom when only part of the track is shown. In the zoom mode, the display area is moved using the **WAVE SEARCH (ZOOM)** buttons (◄,►).

CD TEXT will be displayed in the TEXT mode.

The contents of the display is the disc title and track title in English up to a maximum of 48 letters which can be scrolled.

(56) Playback Address display

Indicates elapsed playback time and remaining playback time in an easy to grasp 1-track full scale or 2x zoom scale bar graph.

The 1-track full scale mode shows elapsed time by lit segments from the left.

The 1-track full scale mode shows remaining time by unlit segments from the left.

When the remaining time is 30 seconds or less, the display flashes gently and the flashing becomes faster when there is 15 seconds or less left.

In the 2x zoom scale mode, only the playback position is lit for the WAVE display.

(57) BPM Counter

Indicates BPM for the current track.

The BPM counter may sometimes not be able to measure the BPM of a track.

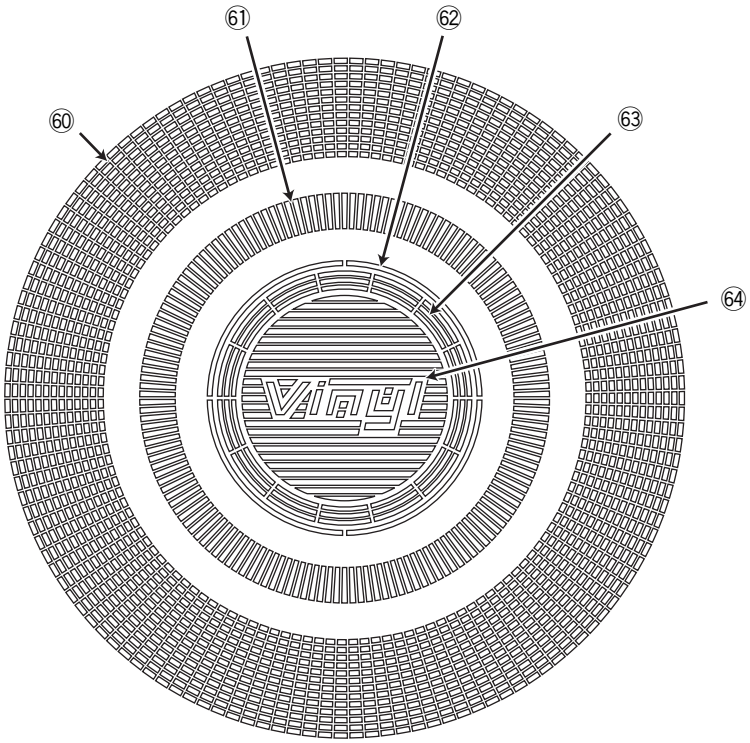
(58) EJECT LOCK indicator

Lights when the **EJECT UNLOCK/LOCK** switch is set to the [LOCK] position.

(59) Master Tempo indicator (MT)

Lights when the master tempo function is on.

■ JOG DIAL DISPLAY



⑥⓪ **Operation display**
Indicates play position in frames 135 frames for one full rotation. Turns during playback and stops during pause.

⑥① **Cue point position indicator**
Indicates the current cue point position.

⑥② **Display the condition of the audio memory**
When set in the audio memory display mode the light will flash when recording.

⑥③ **Jog touch detection indicator**
In the **VINYL** mode, this indicator lights when the surface of the Jog dial is pressed.

⑥④ **VINYL mode display.**
Lights up in the **VINYL** mode.